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**FIGURE 1**

GGCACGAGGGTAGGCACTTTAGCTCAGTGATGGATTTTAAGAACGATTACACCTGTCGCCTGTGGTCTGACTCCA  
GGCACTCGCGTCAGGTACTTCTGCTCCAGGATAGCTTTATGAATTGCTCTGACAGCATCATCAATGGTTCCTTTC  
GTGCGCTTGGCTTTATTCATGAGGCTCAGGTCGGGGAAAGACTGATGGTCCACTGTGACAGCAAGACAGGTAATG  
CAAATACGGATTTTCATCTGGGTGGGTCCAGATAACAGACTGCTAGAGCCGGATAAAGAGATGGAAAACCTTTTACG  
TGTTTCACAATGGAAGTCTGGTTATAGAAAGCCCTCGTTTTGAGGATGCTGGAGTGTATTCTTGTATCGCAATGA  
ATAAGCAACGCCTGTAAATGAAACTGTGGACGTCACAATAAATGTGAGCAATTTCACTGTAAGCAGATCCCATG  
CTCATGAGGCATTTAACACAGCTTTTACCACCTCTTGCTGCTTGCGTGCCAGTATCGTTTTGGTACTTTTGTACC  
TCTATCTGACTCCATGCCCCTGCAAGTGTAACCAAGAGACAGAAAAATATGCTACACCAAAGCAATGCCCATT  
CATCGATTCTCAGTCCTGGCCCCGCTAGTGATGCC TCCGCTGATGAACGGAAGGCAGGTGCAGGTAAAAGAGTGG  
TGTTTTTGAACCCCTGAAGGATACTGCAGCAGGGCAGAACGGGAAAGTCAGGCTCTTCCAGCGAGGCAGTGA  
TAGCTGAGGGCATCCTAAAGTCCACGAGGGGGAATCTGACTCAGATTCAGTCAATTCAGTGTTTTCTGACACAC  
CTTTTGTGGCGTCCACTTAATTTGTGCCTATATTTGTATGATGTCATAATTTAATCTGTTTCATATTTAACTTTGT  
GTGTGGTCTGCAAAATAAACAGCAGGACAGAAAAA

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**FIGURE 2A**

CGCGTGTCTACGCGGACGCACCGGCTAAGCTGCTTCTGCCGCCGCCGCCCTGGGACCTTGCGGTGAGGCTGC  
GCGGGGCCGAGGCCGCCTCCGAGCGCCAGGTTTATTTCAGTCACCATGAAGCTGCTGCTGCTGCACCCGGCCTTCC  
AGAGCTGCCCTCCTGCTGACCTGCTTGGCTTATGGAGAACCACCCCTGAGGCTCACGCTTCATCCCTGGGTGCAC  
CAGCTATCAGCGCTGCCCTCCTTCTGAGGATCTAATACATCGGTATGGCGAGGGTGACAGCCTACTCTGCAGC  
AGCTGAAGGCCCTGCTCAACCACCTGGATGTGGGAGTGGGCCGGGTAAATGTCACCCAGCACGTGCAAGGACACA  
GGAACCTCTCCACGTGCTTTAGTTCTGGAGACCTCTTACTGCCCACAATTTTCAGCGAGCAGTCGCGGATTGGGA  
GCAGCGAGCTCCAGGAGTTCTGCCCCACCATCCTCCAGCAGCTGGATTCCCGGGCCTGCACCTCGGAGAACCAGG  
AAAACGAGGAGAATGAGCAGACGGAGGAGGGCGGCCAAGCGCTGTTGAAGTGTGGGGATACGGTCTCCTCTGTG  
TGACCGTCACTCCTCTGCTCCCTCCTGGGGGCCAGCGTGGTGGCCTTCATGAAGAAGACCTTTTACAAGAGGC  
TGCTGCTCTACTTCATAGCTCTGGCGATTGGAACCTCTACTCCAACGCCCTCTTCCAGCTCATCCCGGAGGCAT  
TTGGTTTCAACCTCTGGAAGATTATTATGTCTCCAAGTCTGCAGTGGTGTGTTGGGGGCTTTTATCTTTTCTTTT  
TCACAGAGAAGATCTTGAAGATTCTTCTTAAGCAGAAAAATGAGCATCATCATGGACACAGCCATTATGCCTCTG  
AGTCGCTTCCCTCCAAGAAGGACCAGGAGGAGGGGTGATGGAGAAGCTGCAGAACGGGGACCTGGACCACATGA  
TTCTTCAGCACTGCAGCAGTGAGCTGGACGGCAAGGCGCCCATGGTGGACGAGAAGGTCATTGTGGGCTCGCTCT  
CTGTGCAGGACCTGCAGGCTTCCCAGAGTGCTTGCTACTGGCTGAAAGGTGTCCGCTACTCTGATATCGGCACTC  
TGGCCTGGATGATCACTCTGAGCGACGGCCTCCACAATTTTCATCGATGGCCTGGCCATCGGTGCTTCTTCACTG  
TGTCAGTTTTTCCAAGGCATCAGCACCTCGGTGGCCATCCTCTGTGAGGAGTTCCACATGAGCTAGGAGACTTTG  
TCATCCTGCTCAACGCTGGGATGAGCATCCAACAAGCTCTCTTCTTCAACTTCTTTCTGCTGCTGCTACC  
TGGGTCTGGCCTTTGGCATCCTGGCCGGCAGCCACTTCTCTGCCAAGTGGATTTTTCGCTAGCTGGAGGAATGT  
TCTTGATATATTCTCTGGCTGATATGTTCCCTGAGATGAATGAGGTCTGTCAAGAGGATGAAAGGAAGGGCAGCA  
TCTTGATTCCATTTATCATCCAGAACCTGGGCCTCCTGACTGGATTACCATCATGGTGGTCCCTACCATGTATT  
CAGGACAGATCCAGATTGGGTAGGGGCTCTGCCAAGAGCCTGTGGGACTGGAAGTCGGGCCCTGGGCTGCCCGATC  
GCCAGCCCGAGGACTTACCATCCACAATGCACCACGGAAGAGGCCGTTCTATGAAAACTGACACAGACTGTATT  
CCTGCATTCAAATGTCAGCCGTTTGTAATAATGCTGTATCTTAGGAATAAGCTGCCCTGGTAACCACTCTAGCT  
AGTGCCCTCTTGCCCTCTCCTCACCTCCTTTTCTCTCAGTGACTCTGGAACCTGAATGCAGCTTACAAGACAAGCC  
TGACTTTTTTCTCTGATTACCTTGGCCTCCTCTTGGAACCAAGTGTGAAAGGTTTTGAATCCTTTACCCAACAAT  
GCAAAAATAGAGCCAATGGTTATAACTTGGCTAGAAATATCAAGAGTTGAATCCATAGTGTGGGGCCCATGACTC  
TAGCTGGGCACCTTGGACCTCCAGCTGGCCAATAGAAGAGACAGGAGACAGGAAGCCTTCCCATTTTTTCAAAGT  
CTGTTTAATTGCCTATTACTTCTCTCAAAGAGAACCTGAAGTCAGAACACATGAGCAGGGTGAGAGGTGAGGCAA  
GGTTCATCCTGAATGGGAGAGGAAGTCGAACCACTGCTGTGTGTCTTGTGTCAGGATGCTCACTTGTTCCTACTGAG  
ATGCTGGATATTGATTTGTAAACAGCACCTGGTGTTCACGGCTGTCCGAGTGAGCTAACGTGGCGGTGTGGCTG  
CCTGGACCTCCTCTTTCAGGTTAACGCTGACAGAAATGGAGGCTCAGGCTGTCTGCAAGAAAAACAGTTGGTTTGGC  
TGTGATTTTGACCTCCTCTTCCCCACTGCCATCTTCTAAGAGACTTTGTAGCTGCCTCCTAGAAGCACATTCTGA  
GCACATTTGAGACCTCTGTGTTAGAGGGGAGACTGCACAACTATCCTCCCCAGGTTGAGACGTCTGCAGAGTG  
GCAAGCTGACTTGTAGAAATGGGGTGCCATTTATGCTCTACTTAGACAAGGGTAATCAGAAATGGAATCAGTGCA  
GGCAAAATTTAGGATTTGCCGCTTCCATAAATCAAAGCATGACTAATAGGGGGTCTCTGAAATGTAAGGGCACAA  
ACTTCACTTAGGGCATCGCAGATGTTTGCAGAATGGTTGGCCTAATGATTATGCTACAGATGGGTTTTAAATGAC  
CCGCTAGGTTACTGCTTCTTGCAAAAAAGTCGAATCCTGCATTGAATTGAATATGAATTTCTCTAACTCTCT  
CCAGAAATGGATGGAGATAACTTGTCTTTAAACCTGTAGGCCAGCCTTAGCCACTGTGGAGCCCTTGCCCTCGA  
GCTCTGGCTTCAAGGGGAGCTCTTCTCCAGGTTCACTAGGTGAATTGATTTATTATTATCATATTGATAATGTGA  
GATTTCTTTAGCCACTTTGGGGAGCCTGTCTCTCCAGAAGCCTTTCTTAGTGGTGGCCACAGTTGGAGCCCAGGGG  
CCATGTTTGCAAACTGATTCATGTGCATGGCTGACAGGAGTACTGGTTCCTACCAATGCCTGAGCTTTTCTCTT  
ACATAGAAAACTGTCCACTCTCAGTAATCACAAGCAGCATCCGTTTTGTTTTCTCTTCTTGGGAGACATCTGTC  
AAACCAGGAATATTCTTGAAAAGAAGCTGAGCAGGAAAACTGCTGGTGATACTTTTTTTAAGTTTTGTTTTAT  
CTTGCCCTGTTGGCTTCAATACATTTGAGAATACGCTGAAGAGGGAAAATTTTCAGTGATGGAGATTCTAGATTAA  
TATCAGGACTGATTTCTGGTGGGATTATGGTCCAGTTTTACCAAGAACCAATTCCTTGAATGTTGGAATCTAA  
CTTTTTATATTGTCATTATTATTGTTGTTTTTAAACGGTCTTTTGTCTTTTCTGTTTTATTTTTCTCAAGCTGCT  
TTCAGGAGCTAGCAGAAAATAACTCAAAGTTGAAGACTCTGGAAGATTTTGCTTTAACCTAACTCGCATTGATGT

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**FIGURE 2B**

ATTAAATTTATAATTTTAGCATTCCCAATAGATCCATCATTTCCTTAAACATAATACCCTTTGTCTTGAGTAGA  
ATACTAAGTTAGAGTTAGTGGATTTCTAGTTTAGGAGAGGAGCTCAAAACTATAATCTTTAACAAATTGAAAAAT  
GAAATAGGGTGTTTTCCCTTTTTGTGCACACCTATATTACCTTAAGAAATTTTCCTTCCATAGACAGCTGCCTCAA  
AGGGAATCCCTCTTTAAACCGTAGTTGGCGCAGAGGTCAGTCCTAGTCGGAGCTTAGGAGGGGCGGAGACGCTCA  
CATCGTCTGACTTGAGTCGCCACTGATTGTGGCAACAGCTTTGCCTCATGAGTCAAAAATTGGCAATTTCTTTTG  
ATTTTAGTTGTTGAATTTGCTGTTTCAAGCATTTGTACATATTAGAAGTCTAAGGAGTAGCAAGTCAGTGGGAG  
GACTTTTTACCCCTGGCATTAGCAGCTTCGACCTCATTTCCAGATGCACCAGCTCCTATTAATAAGTTAGCAA  
GGAAAGTGATGTCACGTGCAGGAACAGTGAGGCAGGGACAGGGGTTCTGCTCCTTCTCACTTCACCACCGGCAC  
ACAGCTTGCCCTGTCTTTGCCCCAAAGGTATTTGTGTCTAGTGTCAAATTGGAGCTATTCTTCACTGGTCCT  
TAACCTTGGGTTTTAAAAAGAAGGCTTCTCTGTTGGGTAGCGTAAGAGCTGAGTATAGTAAGTCCTCTTCCAAA  
GAGATGGCAATATGCTGGGCATCTACTTTAAAACAAAGTTGTCTGATTTTTGCAAGAGAGGTTAGGATTTTATTG  
TTCTATTTCCCTTTACAGTTCTGCAGTTCCATCACAGTATTTTTTAAATAACTCAGGTGTATGAGCAGAAATT  
AGAAAAGAAAATTAACCTTATGTGGACTGTAAATGTTTATTTGTAAGATTCTATAAATAAAGCTATATTCTGT

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**FIGURE 3**

RVYADAPAKLLLPPPAAWDLAVRLRGAEAAASERQVYSVTMKLLLLHPAFQSCLLLTLLGLWRTTPEAHASSLGAP  
AISAASFLQDLIHRYGEGDSLTLQQLKALLNHLDVGVGRGNVTQHVGHRNLSTCFSSGDLFTAHFSEQSRIGS  
SELQEFCTILQQDSRACTSENQENEENEQTEEGRPSAVEVWGYGLLCVTVISLCSLLGASVVPFMKKTFFYKRL  
LLYFIALAIGTLYSNALFQLIPEAFGFNPLEDYYVSKSAVVFGGFYLFFFTEKILKILLKQKNEHHHGHSHYASE  
SLPSKKDQEEGVMEKLQNGDLDHMIPQHCSSELDGKAPMVDEKVIVGSLSVQDLQASQSACYWLKGVRYSDIGTL  
AWMITLSDGLHNFIDGLAIGASFTVSVFQGISTSVAILCEEFPHELGDVFILLNAGMSIQQALFFNFLSACCCYL  
GLAFGILAGSHFSANWIFALAGGMFLYISLADMFP EMNEVCQEDERKGSILIPFI IQNLGLLTGFTIMVVLTMYS  
GQIQIG



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**FIGURE 4**

GGCACGAGGGATGCAAGGAGATGAGACAGTTAGATTACTTCCTCTTTTCTAATCTGAGAGGTTTCATGTTGAAG  
AAAATCAGTGTTGGGGTTGCAGGAGACCTAAACACAGTCACCATGAAGCTGGGCTGTGTCTCATGGCCTGGGCC  
CTCTACCTTTCCCTTGGTGTGCTCTGGGTGGCCAGATGCTACTGGCTGCCAGTTTTGAGACGCTGCAGTGTGAG  
GGACCTGTCTGCACTGAGGAGAGCAGCTGCCACACGGAGGATGACTTGACTGATGCAAGGGAAGCTGGCTTCCAG  
GTCAAGGCCTACACTTTCAGTGAACCTTCCACCTGATTGTGTCTATGACTGGCTGATCCTCCAAGGTCCAGCC  
AAGCCAGTTTTTGAAGGGGACCTGCTGGTTCTGCGCTGCCAGGCCTGGCAAGACTGGCCACTGACTCAGGTGACC  
TTCTACCGAGATGGCTCAGCTCTGGGTCCCCCGGGCCTAACAGGGAATTCTCCATCACCGTGGTACAAAAGGCA  
GACAGCGGGCACTACCACTGCAGTGGCATCTTCCAGAGCCCTGGTCCCTGGGATCCCAGAAACAGCATCTGTTGTG  
GCTATCACAGTCCAAGAACTGTTTCCAGCGCCAATTCTCAGAGCTGTACCCTCAGCTGAACCCCAAGCAGGAAGC  
CCCATGACCCTGAGTTGTCTAGACAAAGTTGCCCCCTGCAGAGGTCAGCTGCCCCGCTCCTCTTCTCCTTCTACAAG  
GATGGAAGGATAGTGCAAAGCAGGGGGCTCTCCTCAGAAATCCAGATCCCCACAGCTTCAGAAGATCACTCCGGG  
TCATACTGGTGTGAGGCAGCCACTGAGGACAACCAAGTTTGGAACAGAGCCCCCAGCTAGAGATCAGAGTGCAG  
GGTGCTTCCAGCTCTGCTGCACCTCCACATTGAATCCAGCTCCTCAGAAATCAGCTGCTCCAGGAAGTCTCCT  
GAGGAGGCCCTGGGCCTCTGCCTCCGCCGCCAACCCCATCTTCTGAGGATCCAGGCTTTTCTTCTCCTCTGGGG  
ATGCCAGATCCTCATCTGTATCACCAGATGGGCCTTCTTCTCAAACACATGCAGGATGTGAGAGTCTCCTCGGT  
CACCTGCTCATGGAGTTGAGGGAATTATCTGGCCACCAGAAGCCTGGGACCACAAAGGCTACTGCTGAATAGAAG  
TAAACAGTTCATCCATGATCTCACTTAACCAACCCCAATAAATCTGATTCTTTATTTTCTTCTCCTGTCTGCACA  
TATGCATAAGTACTTTTACAAGTTGTCCAGTGTTTTGTTAGAATAATGTAGTTAGGTGAGTGAAATAAATTTA  
TATAAAGTGAGAATTAGAGTTTAGCTATAATTGTGTATTCTCTCTTAACACAACAGAATTCTGCTGTCTAGATCA  
GGAATTTCTATCTGTTATATCGACCAGAATGTTGTGATTTAAAGAGAACTAATGGAAGTGGATTGAATACAGCAG  
TCTCAACTGGGGGCAATTTTGCCCCCAGAGGACATTGGGCAATGTTTGAGACATTTTGGTCATTATACTTGGG  
GGGTTGGGGGATGGTGGGATGTGTGTGCTACTGGCATCCAGTAAATAGAAGCCAGGGGTGCCGCTAAACATCCTA  
TAATGCACAGGGCAGTACCCACAACGAAAAATAATCTGGCCCAAATGTCAGTTGTACTGAGTTTGAGAAACCC  
CAGCCTAATGAAACCCTAGGTGTTGGGCTCTGGAATGGGACTTGTCCCTTCTAATTATTATCTCTTTCCAGCCT  
CATTCAGCTATTCTTACTGACATAACAGTCTTTAGCTGGTGCTATGGTCTGTTCTTTAGTTCTAGTTTGTATCCC  
CTCAAAAGCCATTATGTTGAAATCCTAATCCCCAAGGTGATGGCATTAAGAAGTGGGCCTTTGGGAAGTGATTAG  
ATCAGGAGTGCAGAGCCCTCATGATTAGGATTAGTGCCTTATTTAAAAAGGCCCCAGAGAGCTAACTCACCCCTT  
CCACCATATGAGGACGTGGCAAGAAGATGACATGTATGAGAACCAAAAAACAGCTGTCGCCAAACACCGACTCTG  
TCGTTGCCTTGATCTTGAACCTCCAGCCTCCAGAACTATGAGAAATAAAATTCTGTTGTTTGTAAAAA  
AAAAA

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**FIGURE 5**

MKLGCVLMAWALYLSLGV LWVAQM LLAASFETLQCEGPVCTEESSCHTEDDLTDAREAGFQVKAYTFSEPFHLIV  
SYDWLILQGPAKPVFEGDLLVLRCAWQDWPLTQVTFYRDGSALGPPGPNREFSITVVQKADSGHYHCSGIFQSP  
GPGIPETASVVAITVQELFPAPILRAVPSAEPQAGSPMTLSCQTKLPLQRSAARLLFSFYKDGRIVQSRGLSSEF  
QIPTASEDHSGSYWCEAATEDNQVWKQSPQLEIRVQGASSSAAPPTLNPAPQKSAAPGTAPEEAPGPLPPPPTPS  
SEDPGFSSPLGMPDPHLYHQMGLLLKHMQDVRVLLGHLLMELRELSGHQKPGTTKATAE

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**FIGURE 6**

TCCTGTCTCAGGCAGGCCCTGCGCCTCCTATGCGGAGATGCTACTGCCACTGCTGCTGTCTCGCTGCTGGGCGG  
GTCCCAGGCTATGGATGGGAGATTCTGGATACGAGTGCAGGAGTCAGTGATGGTGCCGGAGGGCCTGTGCATCTC  
TGTGCCCTGCTCTTTCTCCTACCCCCGACAAGACTGGACAGGGTCTACCCCAGCTTATGGCTACTGGTTCAAAGC  
AGTGA CTGAGACAACCAAGGGTGCTCCTGTGGCCACAAACCACCAGAGTCGAGAGGTGGAAATGAGCACCCGGGG  
CCGATTCCAGCTCACTGGGGATCCCGCCAAGGGGA ACTGCTCCTTGGTGATCAGAGACGCGCAGATGCAGGATGA  
GTCACAGTACTTCTTTTCGGGTGGAGAGAGGAAGCTATGTGAGATATAATTTTCATGAACGATGGGTCTTTCTAAA  
AGTAACAGCCCTGACTCAGAAGCCTGATGTCTACATCCCCGAGACCCTGGAGCCCGGGCAGCCGGTGACGGTCAT  
CTGTGTGTTTAACTGGGCCTTTGAGGAATGTCCACCCCTTCTTTCTCCTGGACGGGGGCTGCCCTCTCCTCCCA  
AGGAACCAAACCAACGACCTCCCACTTCTCAGTGCTCAGCTTCACGCCCAGACCCAGGACCACAACACCGACCT  
CACCTGCCATGTGGACTTCTCCAGAAAGGGTGTGAGCGTACAGAGGACCGTCCGACTCCGTGTGGCCTATGCCCC  
CAGAGACCTTGTTATCAGCATTTACGTGACAACACGCCAGCCCTGGAGCCCCAGCCCCAGGGAAATGTCCATA  
CCTGGAAGCCCAAAAAGGCCAGTTCTGCGGCTCCTCTGTGCTGCTGACAGCCAGCCCCCTGCCACACTGAGCTG  
GGTCTG CAGAACAGAGTCTCTCCTCGTCCCATCCTGGGGCCCTAGACCCCTGGGGCTGGAGCTGCCCCGGGGT  
GAAGGCTGGGGATT CAGGGCGCTACACCTGCCGAGCGGAGAACAGGCTTGGCTCC CAGCAGCGAGCCCTGGACCT  
CTCTGTGCAGTATCCTCCAGAGAACCTGAGAGTGA TGGTTTCCCAAGCAAACAGGACAGTCTTGAAAACCTTGG  
GAACGGCACGTCTCTCCAGTACTGGAGGGCCAAAGCCTGTGCCTGGTCTGTGTACACACAGCAGCCCCCAGC  
CAGGCTGAGCTGGACCCAGAGGGGACAGGTTCTGAGCCCCCTCCAGCCCTCAGACCCCGGGGTCTGGAGCTGCC  
TCGGGTTCAAGTGGAGCACGAAGGAGAGTTACCTGCCACGCTCGGCACCCACTGGGCTCC CAGCACGTCTCTCT  
CAGCCTCTCCGTGCACTACTCCCCGAAGCTGCTGGGGCCCCCTCCTGCTCCTGGGAGGCTGAGGGTCTGCACTGCAG  
CTGCTCCTCC CAGGCCAGCCCCGGCCCCCTCTCTGCGCTGGTGGCTTGGGGAGGAGCTGCTGGAGGGGAACAGCAG  
CCAGGACTCCTTCGAGGTACCCCCAGCTCAGCCGGGCCCTGGGGCCAAACAGTCCCTGAGCCTCCATGGAGGGCT  
CAGCTCTGGCCTCAGGCTCCGCTGIGAGGCCTGGAACGTCCATGGGGCCCAGAGTGGATCCATCCTGCAGCTGCC  
AGATAAGAAGGGACTCATCTCAACGGCATTCTCCAACGGAGCGTTTCTGGGAATCGGCATCACGGCTCTTCTTTT  
CCTCTGCCTGGCCCTGATCATCATGAAGATTCTACCGAAGAGACGGACTCAGACAGAAACCCCGAGGCCAGGTT  
CTCCCCGGCACAGCACGATCCTGGATTACATCAATGTGGTCCCCGACGGCTGGCCCCCTGGCTCAGAAGCGGAATCA  
GAAAGCCACACCAAACAGTCTCGGACCCCTCTTCACCAGGTGCTCCCTCCCCAGAATCAAAGAAGAACCAGAA  
AAAGCAGTATCAGTTGCCAGTTTCC CAGAACCCAAATCATCCACTCAAGCCCCAGAATCC CAGGAGAGCCAAGA  
GGAGCTCCATTATGCCACGCTCAACTTCC CAGGCGTCAGACCCAGGCCTGAGGCCCGGATGCCCAAGGGCACCCA  
GGCGGATTATGCAGAAGTCAAGTTCCAATGAGGGTCTCTTAGGCTTTAGGACTGGGACTTCGGCTAGGGAGGAAG  
G

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**FIGURE 7**

MLLP LLLS LLGGSQAMDGRFWIRVQESVMVPEGLCISVPCSF SYPRQDWTGSTPAYGYWFKAVTETITKGAPVAT  
NHQSREVE MSTRGRFQLTGDPKGNCSLVIRDAQM QDESYFFRVERGSYVRYNFMNDGFFLKVTALTQKPDVYI  
PETLEPGQPVTVICVFNWAFEECP PPSFSWTGAALSSQGT KPTTSHFSVLSFTPRPQDHNTDLTCHVDFSRKGVS  
VQRTVRLRVAYAPRDLVISISRDNTPALEPQPQGNVPYLEAQKGQFLRLLCAADSQPPATLSWVLQNRVLSSSHF  
WGPRPLGLELPGVKAGDSGRYTCRAENRLGSQQRALDLSVQYPPENLRVMVSQANRTVLENLNGTSLPVLEGQS  
LCLVCVTHSSPPARLSWTQRGQVLSPSQPSDPGVLELPRVQVEHEGEFTCHARHPLGSQHVSLSLSVHYSKLLG  
PSCSWEAEG LHCSCSSQASPAPSLRWLGEELLEGNSSQDSFEVTPSSAGPWANSSLSLHGGLSSGLRLRCEAWN  
VHGAQSGSILQLPDKKGLISTAFSNGAFLGIGITALFLCLALIIMKILPKRRTQTETPRPRFSRHSTILDYINV  
VPTAGPLAQKR NQKATPNSPRTPLPPGAPSPESKKNQKQYQLPSFPEPKSSTQAPESQESQEELHYATLNFPGV  
RPRPEARMPKGTQADYAEVKFQ

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**FIGURE 8**

GACAGTGGAGGGCAGTGGAGAGGACCGCGCTGTCTGCTGTACCAAGAGCTGGAGACACCATCTCCACCGAGA  
GTCATGGGCCCCATTGGCCCTGCACCTCCTCGTCCTCGTCCCCATCCTCCTCAGCCTGGTGGCCTCCCAGGACTGG  
AAGGCTGAACGCAGCCAAGACCCCTTCGAGAAATGCATGCAGGATCCTGACTATGAGCAGCTGCTCAAGGTGGTG  
ACCTGGGGGCTCAATCGGACCCTGAAGCCCCAGAGGGTGATTGTGGTTGGCGCTGGTGTGGCCGGGCTGGTGGCC  
GCCAAGGTGCTCAGCGATGCTGGACACAAGGTCACCATCCTGGAGGCAGATAACAGGATCGGGGGCCGCATCTTC  
ACCTACCGGGACCAGAACACGGGCTGGATTGGGGAGCTGGGAGCCATGCGCATGCCAGCTCTCACAGGATCCTC  
CACAACTCTGCCAGGGCCTGGGGCTCAACCTGACCAAGTTACCCAGTACGACAAGAACACGTGGACGGAGGTG  
CACGAAGTGAAGCTGCGCAACTATGTGGTGGAGAAGGTGCCCCGAGAAGCTGGGCTACGCCTTGGCTCCCCAGGAA  
AAGGGCCACTCGCCCGAAGACATCTACCAGATGGCTCTCAACCAGGCCCTCAAAGACCTCAAGGCACTGGGCTGC  
AGAAAGCGGATGAAGAAGTTTGAAAGGCACACGCTCTTGGAATATCTTCTCGGGGAGGGGAACCTGAGCCGGCCG  
GCCGTGCAGCTTCTGGGAGACGTGATGTCCGAGGATGGCTTCTTCTATCTCAGCTTCGCCGAGGCCCTCCGGGCC  
CACAGCTGCCTCAGCGACAGACTCCAGTACAGCCGCATCGTGGGTGGCTGGGACCTGCTGCCGCGCGCGCTGCTG  
AGCTCGCTGTCCGGGCTTGTGCTGTTGAACGCGCCCGTGGTGGCGATGACCCAGGGACCGCACGATGTGCACGTG  
CAGATCGAGACCTCTCCCCCGCGCGGAATCTGAAGGTGCTGAAGGCCGACGTGGTGTGCTGACGGCGAGCGGA  
CCGGCGGTGAAGCGCATCACCTTCTCGCCGCGCGCTGCCCCGCCACATGCAGGAGGCGCTGCGGAGGCTGCACTAC  
GTGCCGCCACCAAGGTGTTCTAAGCTTCCGCAGGCCCTTCTGGCGCGAGGAGCACATTGAAGGCGGCCACTCA  
AACACCGATCGCCCGTCGCGCATGATTTCTACCCGCCGCGCGCGAGGGCGCGCTGCTGCTGGCCTCGTACACG  
TGGTCGGACGCGGCGGCAGCGTTGCGCGGCTTGAGCCGGGAAGAGGCGTTGCGCTTGGCGCTCGACGACGTGGCG  
GCATTGCACGGGCCTGTCGTGCCAGCTCTGGGACGGCACCGGCGTCGTCAAGCGTTGGGCGGAGGACCAGCAC  
AGCCAGGGTGGCTTTGTGGTACAGCCGCCGCGCTCTGGCAAACCGAAAAGGATGACTGGACGGTCCCTTATGGC  
CGCATCTACTTTGCCGGCGAGCACACCGCTACCCGCACGGCTGGGTGGAGACGGCGGTCAAGTCGGCGCTGCGC  
GCCGCATCAAGATCAACAGCCGGAAGGGGCTGCATCGGACACGGCCAGCCCCGAGGGGCACGCATCTGACATG  
GAGGGGCAGGGGCATGTGCATGGGGTGGCCAGCAGCCCCTCGCATGACCTGGCAAAGGAAGAAGGCAGCCACCCT  
CCAGTCCAAGGCCAGTTATCTCTCCAAAACACGACCCACACGAGGACCTCGCATTAAAGTATTTTCGGAAAAA

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**FIGURE 9**

MAPLALHLLVLVPIILLSLVASQDWKAERSQDPFEKCMQDPDYEQLLKVVVTWGLNRTLKPQRVIVVGAGVAGLVAA  
KVLS DAGHKVTILEADNRIGGRIFTYRDQNTGWIGELGAMRMPSSHRI LHKLCQGLGLNLTKFTQYDKNTWTEVH  
EVKLRNYVVEKVPEKLG YALRPQEKGHSPEDIYQMALNQALKDLKALGCRKAMKKFERHTLLEYLLGEGNLSRPA  
VQLLGDVMS EDGFFYLSFAEALRAHSCLS DRLQYSRIVGGWDL LPRALLSSLSGLVLLNAPVVAMTQGP HDVHVQ  
IETSPPARNLKVLKADVLLTASGPAVKRITFS PPLPRHMQEALRRLHYVPATKVFLSFRPFWREEHIEGGHSN  
TDRPSRMIFYPPPREGALLASYTWS DAAAAFAGLSREEALRLALDDVAALHGPVVRQLWDGTGVV KRWAEDQHS  
QGGFVVQPPALWQTEKDDWTVPYGRIYFAGEHTAYPHGWVETAVKSALRAAIKINSRKGPASDTASPEGHASDME  
GQGHVHGVASSPSHDLAKEEGSHPPVQGQLSLQNTTHTRTSH

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**FIGURE 10**

GTGCAGTTGCGGCTCCAGGGCC**ATG**GCGGAGGAGCAGGGCCGGGAACGGGACTCGGTTCCCAAGCCGTCGGTGCT  
GTCCTCCACCCAGACCTGGGCGTGGGCGGCGCTGAGCGGCTGGTGTTGGACGCGGCGCTGGCGCTGCAGGCGCG  
CGGGTGTAGCGTGAAGATCTGGACAGCGCACTACGACCCGGGCCACTGTTTCGCCGAGAGCCGCGAGCTACCGGT  
GCGCTGTGCCGGGGACTGGCTGCCGCGAGGCCTGGGCTGGGGCGGCCGCGGCGCCGCTCTGCGCCTACGTGCG  
CATGGTTTTCTGGCGCTCTACGTGCTGTTCTCGCCGACGAGGAGTTCGACGTGGTAGTGTGCGACCAGGTGTC  
TGCTGTATCCCAGTGTTCCAGGCTGGCTAGACGGCGGAAGAAGATCCTATTTTACTGTCACTTCCCAGATCTGCT  
TCTACCAAGAGAGATTCTTTTCTTAAACGACTATACAGGGCCCCAATTGACTGGATAGAGGAATACACCACAGG  
CATGGCAGACTGCATCTTAGTCAACAGCCAGTTCACAGCTGCTGTTTTTAAGGAAACATTCAAGTCCCTGTCTCA  
CATAGACCCCTGATGTCTCTATCCATCTCTAAATGTCAACAGCTTTGACTCAGTTGTTTCTGAAAAGCTGGATGA  
CCTAGTCCCCAAGGGGAAAAAATTCCTGCTGCTCTCCATCAACAGATACGAAAGGAAGAAAAATCTGACTTTGGC  
ACTGGAAGCCCTAGTACAGCTGCGTGGAAGATTGACATCCCAAGATTGGGAGAGGGTTCATCTGATCGTGGCAGG  
TGGTTATGACGAGAGAGTCTTGGAAGATTGGAACATTATCAGGAATTGAAGAAAATGGTCCAACAGTCCGACCT  
TGGCCAGTATGTGACCTTCTTGAGGTCTTTCTCAGACAAACAGAAAATCTCCCTCCTCCACAGCTGCACGTGTGT  
GCTTTACACACCAAGCAATGAGCACTTTGGCATTGTCCCTCTGGAAGCCATGTACATGCAGTGGCCAGTCATTGC  
TGTTAATTCGGGTGGACCCTTGAGTCCATTGACCACAGTGTACAGGGTTTCTGTGTGAGCCTGACCCGGTGCA  
CTTCTCAGAAGCAATAGAAAAGTTCATCCGTGAACCTTCCTTAAAGCCACCATGGGCCTGGCTGGAAGAGCCAG  
AGTGAAGGAAAAATTTTCCCCTGAAGCATTTACAGAACAGCTCTACCGATATGTTACCAAACCTGCTGGTAT**TAATC**  
AGATTGTTTTTAAGATCTCCATTAATGTCATTTTTATGGATTGTAGACCCAGTTTTGAAACCAAAAAAGAAACCT  
AGAATCTAATGCAGAAGAGATCTTTTAAAAAATAAACTTGAGTCTTGAATGTGAGCCACTTTCCTATATACCACA  
CCTCCCTGTCCACTTTTCAGAAAAACCATGTCTTTTATGCTATAATCATTCCAAATTTTGCCAGTGTAAAGTTAC  
AAATGTGGTGTCAATCCATGTTTCAGCAGAGTATTTTAATTATATTTTCTCGGGATTATTGCTCTTCTGTCTATAA  
ATTTTGAATGATACTGTGCCTTAATTGGTTTTTCATAGTTTTAAGTGTGTATCATTATCAAAGTTGATTAATTTGGC  
TTCATAGTATAATGAGAGCAGGGCTATTGTAGTTCCAGATTCAATCCACCGAAGTGTTCACTGTCTATCTGTTAG  
GGAATTTTTGTTTGTCTGCTTTTGCCTGGATCCATAGCGAGAGTGCTCTGTATTTTTTTTTTAAGATAATTTGTAT  
TTTTGCACACTGAGATATAATAAAAGGTGTTTATC

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**FIGURE 11**

MAEEQGRERDSVPKPSVLF~~FL~~HPDLGVGGAERLVLDAAALQARGCSVKI~~WT~~AHYDPGHCFAESRELPVRCAGDWL  
PRGLGWGGRGA~~AV~~CAYVRMV~~FL~~ALYV~~LF~~LADEEFDVVVCDQVSACIPV~~FRL~~ARRRKKILFYCHFPD~~LLL~~TKRDSF  
LKRLYRAPIDWIEEYTTGMADCILVNSQFTA~~AV~~FKETFKSLSHIDPDVLYPSLNVTSFDSVVPEKLDDLV~~PKG~~KK  
FLLLSINRYERKKNLTLALEALVQLRGRLTSQDW~~ERV~~HLIVAGGYDERVLENVEHYQELKKMVQQSDLGQYVTF~~L~~  
RSFSDKQKISLLHSC~~TC~~VLYTPSNEHFGIVPLEAMYMQCPVIAVNSGGPLESIDH~~SV~~TGFLCEPD~~PV~~HFSE~~AI~~EK  
FIREPSLKATMGLAGR~~AR~~VKEKFSPEAFTEQLYRYVTKLLV



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**FIGURE 12**

AGTGCGTGAGTTTGGTGGCGGCCGGCTGTGCAGAGACGCCATGTACCGGCTCCTGTCAGCAGTGACTGCCCGGGC  
TGCCGCCCCCGGGGGCTTGGCCTCAAGCTGCGGACGACGCGGGGTCCATCAGCGCGCCGGGGCTGCCGCCTCTCGG  
CCACGGCTGGGTGCGGGGGCTCGGGCTGGGGCTGGGGCTGGCGCTCGGGGTGAAGCTGGCAGGTGGGGCTGAGTGG  
CGCGGCCCCCGGCGCAGTCCCCCGCGGCCCCCGACCCTGAGGCGTCCCTCTGGCCGAGCCGCCACAGGAGCAGTC  
CCTCGCCCCGTGGTCTCCGCAGACCCCGGCGCCGCCCTGCTCCAGGTGCTTCGCCAGAGCCATCGAGAGCAGCCG  
CGACCTGCTGCACAGGATCAAGGATGAGGTGGGCGCACCGGGCATAGTGGTTGGAGTTTCTGTAGATGGAAAAGA  
AGTCTGGTCAGAAGGTTTAGGTTATGCTGATGTTGAGAACCGTGACCATGTAAACCAGAGACAGTTATGCGAAT  
TGCTAGCATCAGCAAAAGTCTCACCATGGTTGCTCTTGCCAAATTGTGGGAAGCGGGGAAACTGGATCTTGATAT  
TCCAGTACAACATTATGTTCCCGAATTCCCAGAAAAAGAATATGAAGGTGAAAAGGTTTCTGTCAACAAGATT  
ACTGATTTCCCATTTAAGTGGAAATTCGTCATTATGAAAAGGACATAAAAAAGGTGAAAGAAGAGAAAGCTTATAA  
AGCCTTGAAGATGATGAAAGAGAATGTTGCATTTGAGCAAGAAAAAGAAGGCAAAAGTAATGAAAAGAATGATTT  
TACTAAATTTAAACAGAGCAGGAGAATGAAGCCAAATGCCGGAATTCAAAACCTGGCAAGAAAAAGAATGATTT  
TGAACAAGGCGAATTATATTTGAGAGAAAAGTTTGAAAATTCAATTGAATCCCTAAGATTATTTAAAAATGATCC  
TTTGTCTTCAAACCTGGTAGTCAGTTTTTGTATTCAACTTTTGGCTATACCCTACTGGCAGCCATAGTAGAGAG  
AGCTTCAGGATGTAAATATTTGGACTATATGCAGAAAATATTCCATGACTTGGATATGCTGACGACTGTGCAGGA  
AGAAAACGAGCCAGTGATTTACAATAGAGCAAGGTAAATGAATACCTTCTGCTGTGTCTAGCTATATCGCATCTT  
AACACTATTTTATTAATTAAGTCAAATTTTCTTTGTTTCCATTCCAAAATCAACCTGCCACATTTTGGGAGCT  
TTTCTACATGTCTGTTTTCTCATCTGTAAAGTGAAGGAAGTAAACATGTTTATAAAGTACACTAAGACCCTTTG  
ATGAAAGATAGCAATAATATTAATAATTCAAACATGAATAACTAAACCAAAATTCACCCACCATGAGCATCTGT  
AATTTGCTCTTTAACCATTCTTTTTTAGGTTTTAACTAATACTTTGTTTACGTGTTATTAGTTTTTAATTGTTT  
TCATACTGTTTTGAAATAATTTTATACTTATAGAAAAGTTGCAAGAGTAGTACAAAGGATTCACATATCCTCTTT  
ACTCAGATTCCCTTAATGTTAGTTTACCGCATTTCATTACCTTTCTGTCTACATATGTGTTTGTCTGAACCA  
TTTGAAAATAAGTTGTAGACGTGATACCCCTTTACCTATAAATATTTACATGTGTATTTCTAAAAACAAGGACA  
TTCAGGGCCGGGTGCAGTGGCTCACGCCTGTAATCCAACACTTTGGAAGGCCGAGGTGGGTGGATCACCTGAGG  
TCAGGAGTTCAAGACCAGCCTGGCCAATGTGGTGAAATCAACCCTCTCTCTACTAAAAATGCAAAAATTAGCCAG  
GTGTGGTGGCGGGTGCCTATAATCCCAGCCACGCGGGAGGCTGAGGCAGGAGAAATCGTTGAACCCAGGAGGTGG  
AGTTGCAGTAAGCCAAGATCGTGCCCCTGCACTTCAGGCTGGGCGAAAGAGTGAGACTCCATGTCAAAAAGGAT

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**FIGURE 13**

MYRLLSAVTARAAAPGGLASSCGRRGVHQRAGLPPLGHGWVGGLGLGLGLALGVKLAGGLSGAAPAQSPAAPDPE  
ASPLAEPPQEQLAPWSPQTPAPPCSRCFARAIESSRDLLHRIKDEVGAPGIVVGVSVDGKEVWSEGLGYADVEN  
RVPCKPETVMRIASISKSLTMVALAKLWEAGKLDLDIPVQHYVPEFPEKEYEGEKVSVTTRLLISHLSGIRHYEK  
DIKKVKEEKAYKALKMMKENVAFEQEKEGKSNEKNDFTKFKTEQENEAKCRNSKPGKKKNDFEQGELYLREKFEN  
SIESLRLFKNDPLFFKPGSQFLYSTFGYTLLAAIVERASGCKYLDYMQKIFHDLDMLTTVQEENEPVIYNRAR

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**FIGURE 14**

ACCGCTGGCCCCAGGGAAAGCCGAGCGGCCACCGAGCCGGCAGAGACCCACCGAGCGGCGGGAGGGAGCAGCG  
CCGGGGCGCACGAGGGCACC**ATG**GGCCAGACGCCCCGCCTTCGACAAGCCCAAAGTAGAACTGCATGTCCACCTAG  
ACGGATCCATCAAGCCTGAAACCATCTTATACTATGGCAGGAGGAGAGGGATCGCCCTCCCAGCTAACACAGCAG  
AGGGGCTGCTGAACGTCATTGGCATGGACAAGCCGCTCACCCCTCCAGACTTCCTGGCCAAATTTGACTACTACA  
TGCCTGCTATCGCGGGCTGCCGGGAGGCTATCAAAAGGATCGCCTATGAGTTTGTAGAGATGAAGGCCAAAGAGG  
GCGTGGTGTATGTGGAGGTGCGGTACAGTCCGCACCTGCTGGCCAACTCCAAAGTGGAGCCAATCCCCTGGAACC  
AGGCTGAAGGGGACCTCACCCCAGACGAGGTGGTGGCCCTAGTGGGCCAGGGCCTGCAGGAGGGGGAGCGAGACT  
TCGGGGTCAAGGCCCCGGTCCATCCTGTGCTGCATGCGCCACCAGCCCAACTGGTCCCCCAAGGTGGTGGAGCTGT  
GTAAGAACTACCAGCAGCAGACCGTGGTAGCCATTGACCTGGCTGGAGATGAGACCATCCCAGGAAGCAGCCTCT  
TGCCTGGACATGTCCAGGCCTACCAGGAGGCTGTGAAGAGCGGCATTACCGTACTGTCCACGCCGGGGAGGTGG  
GCTCGGCCGAAGTAGTAAAAGAGGCTGTGGACATACTCAAGACAGAGCGGCTGGGACACGGCTACCACACCCTGG  
AAGACCAGGCCCTTTATAACAGGCTGCGGCAGGAAAACATGCACTTCGAGATCTGCCCCTGGTCCAGCTACCTCA  
CTGGTGCCTGGAAGCCGGACACGGAGCATGCAGTCATTGCGGCTCAAAAATGACCAGGCTAACTACTCGCTCAACA  
CAGATGACCCGCTCATCTTCAAGTCCACCCTGGACACTGATTACCAGATGACCAAACGGGACATGGGCTTTACTG  
AAGAGGAGTTTAAAAGGCTGAACATCAATGCGGCCAAATCTAGTTTCTCCAGAAAGATGAAAAGAGGGAGCTTC  
TCGACCTGCTCTATAAAGCCTATGGGATGCCACCTTCAGCCTCTGCAGGGCAGAACCTCT**TGA**AGACGCCACTCCT  
CCAAGCCTTCACCCTGTGGAGTCACCCCAACTCTGTGGGGCTGAGCAACATTTTACATTTATTCCTTCCAAGAA  
GACCATGATCTCAATAGTCAGTTACTGATGCTCCTGAACCCTATGTGTCCATTTCTGCACACACGTATACCTCGG  
CATGGCCGCGTCACTTCTCTGATTATGTGCCCTGGCAGGGACCAGCGCCCTTGCACATGGGCATGGTTGAATCTG  
AAACCCTCCTTCTGTGGCAACTTGTACTGAAAATCTGGTGTCTCAATAAAGAAGCCCATGGCTGGTGGCATGC

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**FIGURE 15**

MAQTPAFDKPKVELHVHLDGSIKPETILYYGRRRGIALPANTAEGLLNVIGMDKPLTLPDFLAKFDYYMPAIAAGC  
REAIKRIAYEFVEMKAKEGVVYVEVRYSPLLANSKVEPIPWNAEGDLTPDEVVALVGQGLQEGERDFGVKARS  
ILCCMRHQPNWSPKVVELCKNYQQQTVVAIDLAGEDETIPGSSLLPGHVQAYQEAVKSGIHRTVHAGEVGSAEVLK  
EAVDILKTERLGHYHTLEDQALYNRLRQENMHFEICPWSSYLTGAWKPDTEHAVIRLKNDQANYSLNTDDPLIF  
KSTLDTDYQMTKRDGMGFTEEEFKRLNINAAKSSFLPEDEKRELLDILLYKAYGMPPSASAGQNL

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**FIGURE 16**

CGGCCCCAGTCGACGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCTATGCTCCCAAGCAGACCCCGGCCCCGCGCTGCCCGCACTCCTGGTCTTGCTCGGGGCTCTGTTCCCAAGACCTGGCAATGCCCAAGACATCTGTGTCCCCCTCAAAGTCACTCTGCCCGGGGAGGCTCGTGCTGGTGACATGCAGCACCTCCTGTGACCAGCCCCAAGTTGTTGGGCATAGAGACCCCGTTGCCTAAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTGAGCAATGTGCAAGAAGATAGCCAACCAATGTGCTATTCAAACCTGCCCTGATGGGCAGTCAACAGCTAAAAACCTCTCACCGTGTACTGGACTCCAGAACGGGTGGAACCTGGCACCCCTCCCCCTCTTGGCAGCCAGTGGGCAAGAACCTTACCCTACGCTGCCAGGTGGAGGTGGGGCACCCCGGGCCAACCTCACCGTGGTGTCTGCTCCGTGGGGAGAAGGAGCTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTACGACCACGGTGTGGTGAGGAGAGATCACCATGGAGCCAATTTCTCGTGCCGCACTGAACTGGACCTGCGGCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCCCTACCAGCTCCAGACCTTTGTCTTGCCAGCGACTCCCCACAACCTTGTACGCCCCGGGTCTTAGAGGTGGACACGCAGGGGACCGTGGTCTGTTCCCTGGACGGGCTGTTCCAGTCTCGGAGGCCAGGTCCACCTGGCACTGGGGGACAGAGGTTGAACCCCAAGTCACTATGGCAACGACTCCTTCTCGGCCAAGGCTCAGTCAGTGTGACCGCAGAGGACGAGGGCACCCAGCGGCTGACGTGTGCAGTAATACTGGGGAACCAAGAGCCAGGAGACACTGCAGACAGTGACCATCTACAGCTTTCCGGCGCCCAACGTGATTCTGACGAAGCCAGAGGTCTCAGAAGGGACCGAGGTGACAGTGAAGTGTGAGGGCCACCTTAGAGCCAAGGTGACGCTGAA TGGGGTTCCAGCCAGCCACTGGGCCCGAGGGGCCAGCTCTGTCTGAAGGCCACCCAGAGGACAACGGGCGCAGCTTCTCCTGCTCTGCAACCTTGAGGTGGCCGGCCAGCTTATACACAAGAACCAGACCCGGGAGCTTCGTGTCTGTATGGCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC TGGACGTGGCCAGAAAATTCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGTCTAAAGGATGGCACTTTCCCACTGCCCATCGGGGAATCAGTGACTGTCACTCGAGATCTTGAGGGGCACCTACCTCTGTCTGGGGCCAGGAGCACTCAAGGGGAGGTACCCCGCGAGGTGACCGTGAATGTGCTCTCCCCCGGTATGAGATTGTATCATCACTGTGGTAGCAGCCGAGTCATAATGGGCACTGCAGGCCCTCAGCACGTACCTCTATAACCGCCAGCGGAAGATCAAGAAATACAGACTACAACAGGCCCCAAAAGGGACCCCCATGAAACCGAACACACAAGCCACGCCCTCCCCTGAACCTATCCCGGGACAGGGCTCTTCTCCTCGGCCCTTCCATATTGGTGGCAGTGGTGCCACACTGAACAGAGTGGAAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGGAGGACAGGGCATTGTCTCAGTCAGATACAACAGCATTGGGGCCATGGTACCTGCACACCTAAAAACTAGGCCACGCATCTGATCTGTAGTCACATGACTAAGCCAAGAGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG GTGGGGGAGACATAGCCCCACCATGAGGACATACAACCTGGGAAATACTGAAACTTGCTGCCTATTGGGTATGCTGAGGCCCCACAGACTTACAGAAGAAAGTGGCCCTCCATAGACATGTGTAGCATCAAAACACAAAGGGCCACACTTCTGACGGATGCCAGCTTGGGCACTGCTGTCTACTGACCCCCAACCTTGATGATATGTATTTATTCAATTGTTATTTTACCAGCTATTTATTGAGTGTCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCACGGAGCTCCCACTTCAAGTGTACATTTCAAGGTCAACAGGTACAGTTGTACAGGTTGTACACTGCAGGAGAGTGCTGGCAAAAAGATCAAATGGGGCTGGGACTTCTCATTGGCCAACCTGCCTTTTCCCAGAAGGAGTGATTTTCTATCGGCACAAAAGCACTATATGGACTGGTAATGGTTTACAGGTTTACAGAGATTACCCAGTGAGGCCCTTATTCTCCTTCCCCCAAACTGACACCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTTTACAATGACACTCAGCGGTATGTCTGGACATGAGTGCCCCAGGGAATATGCCCAAGCTATGCCTTGTCTCTTGTCTGTTTGCATTTCACTGGGAGCTTGCACCTTTGACGCTCCAGTTTCTTGCAGTGATCAGGGTCTTGCAAGCAGTGGGGGAAGGGGGCAAGGTATTGGAGGACTCCCTCCAGCTTTGGAAAGGGTCACTCCGCGTGTGTGTGTGTGTGTATGTGTAGACAAGCTCTCGCTCTGTACCCAGGCTGGAGTGCAGTGGTGCAATCATGGTTCACTGCAGTCTTGACCTTTTGGGCTCAAGTGATCCTCCCACTCAGCTCCTTGAGTAGCTGGGACCATAGGCTCACAACACCACACCTGGCAAAATTTGATTTTTTTTTTTTTTTTCAGAGACGGGGTCTCGCAACATTGCCAGACTTCTTTGTGTAGTTAATAAAGCTTTCTCAACTGCC

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**FIGURE 17**

MAPSSRPALPALLVLLGALFPGPGNAQTSVSPSKVILPRGGSVLVTCSTSCDQPKLLGIETPLPKKELLLPGNN  
RKVYELSNVQEDSQPMCYSNCPDGQSTAKTFLTIVYWTPERVELAPLPSWQPVGKNLTLRCQVEGGAPRANLTVVL  
LRGEKELKREPAVGEPAEVTTTTVLVRRDHHGANFSCRTELDRLPQGLELFENTSAPYQLQTFVLPAATPPQLVSPR  
VLEVDTQGTVVCSLDGLFPVSEAQVHLALGDQRLNPTVTYGNDSFSAKASVSVTAEDGTQRLTCAVILGNQSQE  
TLQTVTIYSFPAPNVILTKPEVSEGTEVTVKCEAHPRAKVTLNGVPAQPLGPRAQLLLKATPEDNGRSFSCSATL  
EVAGQLIHKNQTRRLRVLYGPRLDERDCPGNWTWPENSQQTPMCQAWGNPLPELKCLKDGTFFLPIGESVTVTRD  
LEGTYLCRARSTQGEVTREVTNVLSPRYEIVIIITVVAHAVIMGTAGLSTYLYNRQRKIKKYRLQQAQKGTPMKP  
NTQATPP

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**FIGURE 18**

TGCTGCGAACCACGTGGGTCCCGGGCGCGTTTCGGGTGCTGGCGGCTGCAGCCGGAGTTCAAACCTAAGCAGCTG  
GAAGGAACCATGGCCAACGTGAGCGTACCTTCATTGCGATCAAACCAGATGGGGTCCAGCGGGGTCTTGTGGGA  
GAGATTATCAAGCGTTTTGAGCAGAAAGGATTCCGCCTTGTTGGTCTGAAATTCATGCAAGCTTCCGAAGATCTT  
CTCAAGGAACACTACGTTGACCTGAAGGACCGTCCATTCTTTGCCGGCCTGGTGAAATACATGCACTCAGGGCCG  
GTAGTTGCCATGGTCTGGGAGGGGCTGAATGTGGTGAAGACGGGCCGAGTCATGCTCGGGGAGACCAACCCTGCA  
GACTCCAAGCCTGGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAACATTATACATGGCAGTGATTCT  
GTGGAGAGTGCAGAGAAGGAGATCGGCTTGTTGGTTTCACCCTGAGGAACTGGTAGATTACACGAGCTGTGCTCAG  
AACTGGATCTATGAATGACAGGAGGGCAGACCACATTGCTTTTCACATCCATTTCCCCTCCTTCCCATGGGCAGA  
GGACCAGGCTGTAGGAAATCTAGTTATTTACAGGAACCTCATCATAATTTGGAGGGAAGCTCTTGGAGCTGTGAG  
TTCTCCCTGTACAGTGTTACCATCCCCGACCATCTGATTAAAATGCTTCCTCCCAGC

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**FIGURE 19**

MANCERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHS GPVVA  
MVWEGLNVVKTGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELVDYTSCAQNW  
YE



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**FIGURE 20**

TAAGTGAAGCGAGGAGCAATTGATTAATAGCTCGGCGAGGGGACTCACTGACTGTTATAATAACACTACACCAGCA  
ACTCCTGGCTTCCCAGCAGCCGGAACACAGACAGGAGAGAGTCACTGGCAAATAGACATTTTTCTTATTTCTTAA  
AAAACAGCAACTTGTGTTGCTACTTTTATTTCTGTTGATTTTTTTTTCTTGGTGTGTGTGGTGGTTGTTTTAAGT  
GTGGAGGGCAAAGGAGATACCATCCAGGCTCAGTCCAACCCCTCTCCAAAACGGCTTTTCTGACACTCCAGGT  
AGCGAGGGAGTTGGGTCTCCAGGTTGTGCGAGGAGCAAATGATGACCGCCAAGGCCGTAGACAAAATCCAGTAA  
CTCTCAGTGGTTTTGTGCAACAGCTGTCTGACAACATCTACCCGGTGGAGGACCTCGCCGCCACGTCGGTGACCA  
TCTTTCCCAATGCCGAAGTGGGAGGCCCTTTGACCAGATGAACGGAGTGGCCGGAGATGGCATGATCAACATTG  
ACATGACTGGAGAGAAGAGGTCTGTTGATCTCCCATATCCAGCAGCTTTGCTCCCGTCTCTGCACCTAGAAACC  
AGACCTTCACTTACATGGGCAAGTTCTCCATTGACCCTCAGTACCCTGGTGCCAGCTGCTACCCAGAAGGCATAA  
TCAATATTGTGAGTGCAGGCATCTTGCAAGGGGTCACTTCCCCAGCTTCAACCACAGCCTCATCCAGCGTCACCT  
CTGCCATCCCCAACCCACTGGCCACAGGACCCCTGGGTGTGTGCACCATGTCCAGACCCAGCCTGACCTGGACC  
ACCTGTAATCTCCGCCACCGCTCTCTCTCTTATTCTGGCTGTGCAGGAGACCTCTACCAGGACCCCTTCTGCGT  
TCTGTGAGCAGCACCACCTCCACCTCTTCTCTCTGGCCTACCCACCACCTCCTTCTATCCATCCCCAAGC  
CAGCCACGGACCCAGGTCTCTTCCAATGATCCAGACTATCCTGGATTCTTTCCATCTCAGTGCCAGAGAGACC  
TACATGGTACAGCTGGCCAGACCGTAAGCCCTTTCCCTGCCCACTGGACACCCCTGCGGGTGCCCCCTCCACTCA  
CTCCACTCTCTACAATCCGTAACCTTTACCCTGGGGGGCCCCAGTGCTGGGGTGACCGGACCAGGGGCCAGTGAG  
GCAGCGAGGGACCCCGGTGCTGTAGCAGCTCAGCAGCAGCAGCAGCCGCCGCCGCCGCCCTATAACCCAC  
ACCACCTGCCACTGCGGCCATTCTGAGGCTCGCAAGTACCCCAACAGACCCAGCAAGACGCCGGTGCACGAGA  
GGCCCTACCCGTGCCAGCAGAAGGTGCGACCGCGGTTCTCCCGCTCTGACGAGCTGACACGGCACATCCGAA  
TCCACACTGGGCATAAGCCCTTCCAGTGTGGATCTGCATGCGCAACTTCAGCCGCAGTGACCACCTCACCACCC  
ATATCCGCACCCACACCGGTGAGAAGCCCTTCGCCTGTGACTACTGTGGCCGAAAGTTTGCCCGGAGTGATGAGA  
GGAAGCGCCACACCAAGATCCACCTGAGACAGAAAGAGCGGAAAAGCAGTGCCCCCTCTGCATCGGTGCCAGCCC  
CCTCTACAGCCTCTGCTCTGGGGGCGTGACGCTGGGGGTACCCCTGTGACGAGTAACAGCAGCAGTCTTGGCG  
GAGGGCCGCTCGCCCCCTTGCTCCTCTCGGACCCGGACACCTTGAGATGAGACTCAGGCTGATACACCAGCTCCCA  
AAGGTCCCGGAGGCCCCCTTTGTCCACTGGAGCTGCAACAACAACTACACCCCTTTCTGTCCCTCTCTCCCTTT  
GTTGGGCAAAGGGCTTTGGTGGAGCTAGCACTGCCCCCTTTCCACCTAGAAGCAGGTTCTTCTTAAACTTAGCC  
CATTCTAGTCTCTCTTAGGTGAGTTGACTATCAACCCAAGGCAAAGGGGAGGCTCAGAAGGAGGTGGTGTGGGGA  
TCCCTGGCCAAGAGGGCTGAGGTCTGACCCCTGCTTTAAAGGGTTGTTTGACTAGGTTTGTCTACCCACTTCCC  
CTTATTTTGACCCATCACAGTTTTTGACCCTGGAATGTCAGAGTTGATCTAAGACGTTTCTACAATAGGTTGGG  
AGATGCTGATCCCTTCAAGTGGGGACAGCAAAAAGACAAGCAAACTGATGTGCACTTTATGGCTTGGGACTGAT  
TTGGGGGACATTGTACAGTGAGTGAAGTATAGCCTTTATGCCACACTCTGTGGCCCTAAAATGGTGAATCAGAGC  
ATATCTAGTTGTCTCAACCCCTGAAGCAATATGTATTATATACTCAGAGAACAGAAGTGCAATGTGATGGGAGGA  
ACGTAGCAATATCTGCTCCTTTTCGAGTTGTTTGAGAAATGTAGGCTATTTTTTCAGTGTATATCCACTCAGATT  
TTGTGTATTTTTGATGTACCCACACTGTTCTCTAAATTCGAATCTTTGGGAAAAAATGTAAAGCATTATGATC  
TCAGAGGTTAACTTATTTAAGGGGGATGTACATATCTCTGAAACTAGGATGCATGCAATTGTGTTGGAAGTGTC  
CTTGGTGCCTTGTGTGATGTAGACAAATGTTACAAGGCTGCATGTAAATGGGTGCTTATTATGGAGAAAAAA  
ATCACTCCCTGAGTTTAGTATGGCTGTATTTATGCCTATTAATATTTGGAATTTTTTTAGAAAGTATATTTT  
TGATAGCTTTGTTTTGTGACTTAAAGTGTTACCTTTGTAGTCAAATTTTCAAGATAAGAATGTACATAATGTTACC  
GGAGCTGATTTGTTTGGTCATTAGCTCTTAATAGTTGTGAAAAAATAAATCTATTCTAACGCAAAACCACTAACT  
GAAGTTGAGATATAATGGATGGTTTGTGACTATAGTGTAATAAATACTTTTCAACAAT

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**FIGURE 21**

MMTAKAVDKIPVTLSGFVHQLSDNIYPVEDLAATSVTIFPNAELGGPFQDMNGVAGDGMINIDMTGEKRSIDLPHY  
PSSFAPVSAPRNQFTFTYMGKFSIDPQYPGASCYPEGIINIVSAGILQGVTSASTTASSSVTSASPNPLATGPLG  
VCTMSQTQPDLOHLYSPPPPPPPYSGCAGDLYQDP SAFLSAATTSTSSSLAYPPPPSYSPKPKATDPGLFPMIPD  
YPGFFPSQCQRDLHG TAGPDRKPFPCPLD TLRVPPPLTPLSTIRNFTLGGPSAGVTGPGASGGSEGPRLPGSSSA  
AAAAAAAAAYNPHHLPLRPILRPRKYPNRPSKTPVHERPYPCPAEGCDRRFSRDELTRHIRIHTGHKPFQCRIC  
MRNFSRSDHLTTHIRHTGEKPFACDYCGRKFARSDEKRRHTKIHLRQKERKSSAPSASVPAPSTASCSGGVQPG  
GTLCSSNSSSLGGGPLAPCSSRTRTP

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**FIGURE 22**

CCGCAGGCGCTCGGGGTTGGAGCCAGCGACCGTCGGTAGCAGC**ATG**GCTCTCCTCTTTCTCCTACCCCTTGTCAT  
GCAGGGTGTGAGCAGGGCTGAGATGGGCACCGCGGATCTGGGGCCGTCCTCAGTGCCTACACCACTAATGTTAC  
AATTGAATCCTATAACATGAACCCTATCGTATATTGGGAGTACCAGATCATGCCACAGGTCCCTGTTTTTACCGT  
AGAGGTAAAGAACTATGGTGTTAAGAATTGAGAATGGATTGATGCCTGCATCAATATTTCTCATCATTATTGTAA  
TATTTCTGATCATGTTGGTGA<sup>3</sup>CCATCAAATTCTCTTTGGGTGAGATTAAAGCCAGGGTTGGACAAAAAGAATC  
TGCCTATGCAAAGTCAGAAGAATTTGCTGTATGCCGAGATGGAAAAATTGGACCACCTAAACTGGATATCAGAAA  
GGAGGAGAAGCAAATCATGATTGACATATTTACCCCTTCAGTTTTTGTAAATGGAGACGAGCAGGAAGTCGATTA  
TGATCCCCGAAACTACCTGTTACATTAGGGTGTACAATGTGTATGTGAGAATGAACGGAAGTGAGATCCAGTATAA  
AATACTCACGCAGAAGGAAGATGATTGTGACGAGATTTCAGTGCCAGTTAGCGATTCCAGTATCCTCACTGAATTC  
TCAGTACTGTGTTTCAGCAGAAGGAGTCTTACATGTGTGGGGTGTACAACTGAAAAGTCAAAGAAGTTTGTAT  
TACCATTTTCAATAGCAGTATAAAAGGTTCTCTTTGGATTCCAGTTGTTGCTGCTTTACTACTCTTTCTAGTGCT  
TAGCCTGGTATTTCATCTGTTTTTATATTAAGAAAAATTAATCCATTGAAGGAAAAAGCATAATATTACCCAAGTC  
CTTGATCTCTGTGGTAAGAAGTGCTACTTTAGAGACAAAACCTGAATCAAATATGTATCACTCATCACGTCATA  
CCAGCCATTTTCCTTAGAAAAGGAGGTGGTCTGTGAAGAGCCGTTGTCTCCAGCAACAGTTCAGGCATGCATAC  
CGAAGACAATCCAGGAAAAGTGAACATACAGAAGAACTTCTAGTATAACAGAAGTGGTGACTACTGAAGAAAA  
TATTCCTGACGTGGTCCCGGGCAGCCATCTGACTCCAATAGAGAGAGAGAGTTCTTCACCTTTAAGTAGTAACCA  
GTCTGAACCTGGCAGCATCGCTTTAACTCGTATCACTCCAGAAATTGTTCTGAGAGTGATCACTCCAGAAATGG  
TTTTGATACTGATTCCAGCTGTCTGGAATCACATAGCTCCTTATCTGACTCAGAATTTCCCCCAAATAATAAAGG  
TGAAATAAAAAACAGAAGGACAAGAGCTCATAACCGTAATAAAAGCCCCACCTCCTTTGGTTATGATAAACCACA  
TGTGCTAGTGGATCTACTTGTGGATGATAGCGGTAAAGAGTCCTTGATTGGTTATAGACCAACAGAAGATTCCAA  
AGAATTTTCAT**GA**GATCAGCTAAGTTCACCAACTTTGAAGTCTGATTTTCTGGACAGTTTTCTGCTTTAATTT  
CATGAAAAGATTATGATCTCAGAAATTGTATCTTAGTTGGTATCAACCAAATGGAGTGACTTAGTGTACATGAAA  
GCGTAAAGAGGATGTGTGGCATTTCCTTTTGGCTTGTAAGTACAGACTTTTTTTTTTTTTTAAACAAAAAAA  
GCATTGTAACCTTATGAACCTTTACATCCAGATAGGTACCAGTAACGGAACATATCCAGTACTCCTGGTTCCTAG  
GTGAGCAGGTGATGCCCCAGGGACCTTTGTAGCCACTTCACTTTTTTTTCTTTCTGCTTGGTATAGCATATG  
TGTTTTGTAAGTTTATGCATACAGTAATTTAAGTAATTTCAGAAGAAATTCTCGAAGCTTTTCAAATTGGACT  
TAAATCTAATTCAAATAATAGAAATTAATGGAATATGTAAATAGAAACGTGTATATTTTTTATGAAACATTACA  
GTTAGAGATTTTTAAATAAAGAATTTTAAACTC

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**FIGURE 23**

MALLFLLPLVMQGVSRAMGTADLGPSSVPTPTNVTIESYNMNPVYWEYQIMPQVPVFTVEVKNYGVKNSEWID  
ACINISHHYCNISDHVGDPSNSLWVRVKARVGQKESAYAKSEEFVAVCRDGKIGPPKLDIRKEEKQIMIDIFHPSV  
FVNGDEQEVDYDPETTCYIRVYNVYVRMNGSEIQYKILTQKEDDCDEIQCQLAIPVSSLNSQYCVSAEGVLHVWG  
VTTEKSKEVCITIFNSSIKGSLWIPVVAALLFLVLSLVFICFYIKKINPLKEKSIILPKSLISVVRSATLETKP  
ESKYVSLITSYQPFSLKEVVCCEPLSPATVPGMHTEDNPGKVEHTEELSSITEVVTTEENIPDVVPGSHLTPIE  
RESSSPLSSNQSEPGSIALNSYHSRNCSESDHSRNGFDTDSSCLESHSSLSDSEFPPNNKGEIKTEGQELITVIK  
APTSFGYDKPHVLVDLLVDDSGKESLIGYRPTEDSKEFS

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**FIGURE 24**

GAGAGACTGGATGGACCCACAAGGGTGACAGCCCAGGCGGACCGATCTTCCCATCCCACATCCTCCGGCGCGATG  
CCAAAAAGAGGCTGACGGCAACTGGGCCCTTCTGCAGAGAAAGACCTCCGCTTCACTGCCCCGGCTGGTCCCAAGG  
GTCAGGAAGATGGATTTCATACCTGCTGATGTGGGGACTGCTCACGTTTCATCATGGTGCCTGGCTGCCAGGCAGAG  
CTCTGTGACGATGACCCGCCAGAGATCCCACACGCCACATTCAAAGCCATGGCCTACAAGGAAGGAACCATGTTG  
AACTGTGAATGCAAGAGAGGTTTCCGCAGAATAAAAAGCGGGTCACTCTATATGCTCTGTACAGGAACTCTAGC  
CACTCGTCTGGGACAACCAATGTCAATGCACAAGCTCTGCCACTCGGAACACAACGAAACAAGTGACACCTCAA  
CCTGAAGAACAGAAAGAAAGGAAAACACAGAAATGCAAAGTCCAATGCAGCCAGTGGACCAAGCGAGCCTTCCA  
GGTCACTGCAGGGAACCTCCACCATGGGAAAATGAAGCCACAGAGAGAATTTATCATTTTCGTGGTGGGGCAGATG  
GTTTATTATCAGTGCCTCCAGGGATACAGGGCTCTACACAGAGGTCCTGCTGAGAGCGTCTGCAAAATGACCCAC  
GGGAAGACAAGGTGGACCCAGCCCCAGCTCATATGCACAGGTGAAATGGAGACCAGTCAGTTTCCAGGTGAAGAG  
AAGCCTCAGGCAAGCCCCGAAGGCCGTCTGAGAGTGAGACTTCCTGCCTCGTCACAACAACAGATTTTCAAATA  
CAGACAGAAATGGCTGCAACCATGGAGACGTCCATATTTACAACAGAGTACCAGGTAGCAGTGGCCGGCTGTGTT  
TTCCTGCTGATCAGCGTCTCCTCCTGAGTGGGCTCACCTGGCAGCGGAGACAGAGGAAGAGTAGAAGAACAATC  
TAGAAAACCAAAAGAACAAGAATTTCTTGTAAGAAGCCGGGAACAGACAACAGAAATCATGAAGCCCAAGTGAA  
ATCAAAGGTGCTAAATGGTCGCCCAGGAGACATCCGTTGTGCTTGCCTGCGTTTTGGAAGCTCTGAAGTCACATC  
ACAGGACACGGGGCAGTGGCAACCTTGTCTCTATGCCAGCTCAGTCCCATCAGAGAGCGAGCGCTACCCACTTCT  
AAATAGCAATTTTCGCCGTTGAAGAGGAAGGGCAAAACCACTAGAACTCTCCATCTTATTTTCATGTATATGTGTT  
CATTAAAGCATGAATGGTATGGAACCTCTCTCCACCCTATATGTAGTATAAAGAAAAAGTAGGTTTACATTCATCTC  
ATTCCAACCTTCCCAGTTCAGGAGTCCCAAGGAAAGCCCCAGCACTAACGTAAATACACAACACACACTCTACC  
CTATACAACTGGACATTGTCTGCGTGGTTCCTTTCTCAGCCGCTTCTGACTGCTGATTCTCCCCTTACGTTGCC  
TAATAAACATCCTTCAAGAACTCTGGGCTGCTACCCAGAAATCATTTTACCCTTGGCTCAATCCTCTAAGCTAAC  
CCCCTTCTACTGAGCCTTCAGTCTTGAATTTCTAAAAACAGAGGCCATGGCAGAATAATCTTTGGGTAACCTTCA  
AAACGGGGCAGCCAAACCCATGAGGCAATGTCAGGAACAGAAGGATGAATGAGGTCCCAGGCAGAGAATCATACT  
TAGCAAAGTTTTACCTGTGCGTTACTAATTGGCCCTTTTAAAGAGTTAGTTTCTTTGGGATTGCTATGAATGATAC  
CCTGAATTTGGCCTGCACTAATTTGATGTTTACAGGTGGACACACAAGGTGCAAATCAATGCGTACGTTTCTCTGA  
GAAGTGTCTAAAAACACCAAAAAGGGATCCGTACATTCATGTTTATGCAAGGAAGGAAAGAAAGGAAGTGA  
AGAGGGAGAAGGGATGGAGGTCACACTGGTAGAACGTAACCACGGAAAAGAGCGCATCAGGCCTGGCACGGTGGC  
TCAGGCCTATAACCCAGCTCCCTAGGAGACCAAGGCGGGAGCATCTCTTGAGGCCAGGAGTTTGAGACCAGCCT  
GGGCAGCATAGCAAGACACATCCCTACAAAAAATTAGAAATTGGCTGGATGTGGTGGCATACGCCTGTAGTCCTA  
GCCACTCAGGAGGCTGAGGCAGGAGGATTGCTTGAGCCAGGAGTTCGAGGCTGCAGTCAGTCATGATGGCACCA  
CTGCACTCCAGCCTGGGCAACAGAGCAAGATCCTGTCTTTAAGGAAAAAAGACAAGG

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**FIGURE 25**

MDSYLLMWGLLTFIMVPGCAELCDDDPPEIPHATFKAMAYKEGTMLNCECKRGFRRIKSGSLYMLCTGNSSHSS  
WDNQCQCTSSATRNTTKQVTPQPPEEQKERKTTEMQSPMQPVDQASLPGHCREPPPWENEATERIYHFVVGQMVYY  
QCVQGYRALHRGPAESVCKMTHGKTRWTQPQLICTGEMETSQFPGEEKPQASPEGRPESETSCLVTTTDFQIQTE  
MAATMETSIFTTEYQVAVAGCVFLLISVLLLSGLTWQRRQRKSRTI

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**FIGURE 26**

GGCGAATGGAGCAGGGGCGCGCAGATAATTAAAGATTTACACACAGCTGGAAGAAATCATAGAGAAGCCGGGCGT  
GGTGGCTCATGCCTATAATCCCAGCACTTTTGGAGGCTGAGGCGGGCAGATCATTGAGATCAGGAGTTCGAGAC  
CAGCCTGGTGCCTTGGCATCTCCCAATCGGGTGGCTTTGCTCTGGGCTCCTGTTCCCTGTGAGCTGCCTGGTCCT  
GCTGCAGGTGGCAAGCTCTGGGAACATGAAGGTCTTGACAGGAGCCACCTGCGTCTCCGACTACATGAGCATCTC  
TACTTGGCAGTGAAGATGAATGGTCCCACCAATTGCAGCACCGAGCTCCGCCTGTTGTACCAGCTGGTTTTTCT  
GCTCTCCGAAGCCCACACGTGTATCCCTGAGAACAACGGAGGCGCGGGGTGCGTGTGCCACCTGCTCATGGATGA  
CGTGGTCAGTGGCGATAACTATACACTGGACCTGTGGGCTGGGCAGCAGCTGCTGTGGAAGGGCTCCTTCAAGCC  
CAGCGAGCATGTGAAACCCAGGGCCCCAGGAAACC TGACAGTTACACCAATGTCTCCGACACTCTGCTGCTGAC  
CTGGAGCAACCCGTATCCCCCTGACAATTACCTGTATAATCATCTCACCTATGCAGTCAACATTTGGAGTGAAAA  
CGACCCGGCAGATTTGAGAATCTATAACGTGACCTACCTAGAACCCTCCCTCCGCATCGCAGCCAGCACCCCTGAA  
GTCTGGGATTTTCTACAGGGCACGGGTGAGGGCCTGGGCTCAGTGCTATAACACCACCTGGAGTGAGTGGAGCCC  
CAGCACCAAGTGGCACAACCTCTACAGGGAGCCCTTCGAGCAGCACCTCCTGCTGGGCGTCAGCGTTTCTGTCAT  
TGTCATCTGGCCGTCTGCCTGTTGTGCTATGTACGATCACCAAGATTAAGAAAGAATGGTGGGATCAGATTCC  
CAACCCAGCCCGCAGCCGCTCTGTGGCTATAATAATCCAGGATGCTCAGGGGTACAGTGGGAGAAGCGGTCCCG  
AGGCCAGGAACCAGCCAAGTGCCACACTGGAAGAATTGTCTTACCAAGCTCTTGCCCTGTTTTCTGGAGCACAA  
CATGAAAAGGGATGAAGATCCTCACAAGGCTGCCAAAGAGATGCCTTTCCAGGGCTCTGGAATAATCAGCATGGTG  
CCCAGTGGAGATCAGCAAGACAGTCTCTGGCCAGAGAGCATCAGCGTGGTGCGATGTGTGGAGTTGTTTGAGGC  
CCCGTGGAGTGTGAGGAGGAGGAGGAGGTAGAGGAAGAAAAAGGGAGCTTCTGTGCATCGCCTGAGAGCAGCAG  
GGATGACTTCCAGGAGGGAAGGGAGGGCATTGTGGCCCGGCTAACAGAGAGCCTGTTCTGACCTGCTCGGAGA  
GGAGAATGGGGGCTTTTGCCAGCAGGACATGGGGGAGTCATGCCTTCTTCCACCTTCGGGAAGTACGAGTGCTCA  
CATGCCCTGGGATGAGTTCCCAAGTGACGGGCCCAAGGAGGCACCTCCCTGGGGCAAGGAGCAGCCTCTCCACCT  
GGAGCCAAGTCTCTGCCAGCCCGACCCAGAGTCCAGACAACCTGACTTGACAGAGACGCCCCCTCGTCATCGC  
AGGCAACCTGCTTACCGCAGCTTCAGCAACTCCCTGAGCCAGTCACCGTGTCCCAGAGAGCTGGGTCCAGACCC  
ACTGCTGGCCAGACACCTGGAGGAAGTAGAACCCGAGATGCCCTGTGTCCCCAGCTCTCTGAGCCAACCACTGT  
GCCCCAACCTGAGCCAGAAACCTGGGAGCAGATCCTCCGCCGAAATGTCTCCAGCATGGGGCAGCTGCAGCCCC  
CGTCTCGGCCCCCACCAGTGGCTATCAGGAGTTTGACATGCGGTGGAGCAGGGTGGCACCCAGGCCAGTGGGT  
GGTGGGCTTGGGTCCCCCAGGAGAGGCTGGTTACAAGGCCTTCTCAAGCCTGCTTGCCAGCAGTGCTGTGTCCCC  
AGAGAAATGTGGGTTTGGGGCTAGCAGTGGGAAGAGGGGTATAAGCCTTTCCAAGACCTCATTCTGGCTGCC  
TGGGGACCTTGCCCCAGTCCCTGTCCCTTGTTCACCTTTGGACTGGACAGGGAGCCACCTCGCAGTCCGCAGAG  
CTCACATCTCCCAAGCAGTCCCCAGAGCACCTGGGTCTGGAGCCGGGGGAAAAGGTAGAGGACATGCCAAAGCC  
CCCCTTCCCCAGGAGCAGGCCACAGACCCCTTGTGGACAGCCTGGGCAGTGGCATTGTCTACTCAGCCCTTAC  
CTGCCACCTGTGCGGCCACCTGAAACAGTGTATGGCCAGGAGGATGGTGGCCAGACCCCTGTCTATGGCCAGTCC  
TTGCTGTGGCTGCTGCTGTGGAGACAGGTCTCGCCCCCTACAACCCCCCTGAGGGCCCCAGACCCCTCTCCAGG  
TGGGGTTCCACTGGAGGCCAGTCTGTGTCCGGCCTCCCTGGCACCCCTCGGGCATCTCAGAGAAGAGTAAATCCTC  
ATCATCCTTCCATCCTGCCCCCTGGCAATGCTCAGAGCTCAAGCCAGACCCCCAAAATCGTGAACTTTGTCTCCGT  
GGGACCCACATACATGAGGGTCTCTTAGGTGTCATGTCCTTGTGTGCTGAGTCTGCAGATGAGGACTAGGGCTTA  
TCCATGCCTGGGAAATGCCACCTCCTGGAAGGCAGCCAGGCTGGCAGATTTCCAAAAGACTTGAAGAACCATGGT  
ATGAAGGTGATTGGCCCCACTGACGTTGGCCTAACACTGGGCTGCAGAGACTGGACCCCGCCAGCATTGGGCTG  
GGCTCGCCACATCCCATGAGAGTAGAGGGCACTGGGTGCGCGTGCCCCACGGCAGGCCCCCTGCAGGAAAACCTGAG  
GCCCTTGGGCACCTCGACTTGTGAACGAGTTGTGGCTGCTCCCTCCACAGCTTCTGCAGCAGACTGTCCCTGTT  
GTAAGTGGCCAAGGCATGTTTTGCCACCCAGATCATGGCCACGTGGAGGCCACCTGCCTCTGTCTCACTGAAC  
TAGAAGCCGAGCCTAGAACTAACACAGCCATCAAGGGAATGACTTGGGCGGCCTTGGGAAATCGATGAGAAATT  
GAACCTCAGGGAGGGTGGTCATTGCCTAGAGGTGCTCATTCATTTAACAGAGCTTCCTTAGGTTGATGCTGGAGG  
CAGAATCCCGGCTGTCAAGGGGTGTTCAAGTTAAGGGGAGCAACAGAGGACATGAAAAATTGCTATGACTAAAGCA  
GGGACAATTTGCTGCCAAACACCCATGCCAGCTGTATGGCTGGGGGCTCCTCGTATGCATGGAACCCCCAGAAT  
AAATATGCTCAGCCACCCTGTGGGCCGGGCAATCCAGACAGCAGGCATAAGGCACCAGTTACCCTGCATGTTGGC  
CCAGACCTCAGGTGCTAGGGAAGGCGGGAAACCTTGGGTTGAGTAATGCTCGTCTGTGTGTTTTAGTTTCATCACC  
TGTTATCTGTGTTTGGCTGAGGAGAGTGGAACAGAAGGGGTGGAGTTTTGTATAAATAAAGTTTCTTTGTCTC

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**FIGURE 27**

MGWLCSGLLPVSVCLVLLQVASSGNMKVLQEPTCVSDYMSISTCEWKMNPTNCSTELRLLYQLVFLLEAHTCI  
PENNGGAGCVCHLLMDDVVSADNYTLDLWAGQQLWKGSFKPSEHVKPRAPGNLTVHTNVSDTLLLTWSNPYP  
NYLYNHLTYAVNIWSENDPADFRIYNVTYLEPSLR IAASTLKSGISYRVRVRAWAQCYNTTWSEWSPSTKWHNSY  
REPFEQHLLLVSVSCIVILAVCLLCYVSITKIKKEWWDQIPNPARSRLVAII IQDAQGSQWEKRSRGQEP  
HWKNCLTKLLPCFLEHNMKRDEDPHKA AKEMPFGSGKSAWCPVEISKTVLWPESISVVRVVELFEAPVECE  
EVEEEKGSFCASPESSRDDFQEGREGIVARLTESLFLDLLGEENGFCQQDMGESCLLPSPGSTSAHMPWDEFPS  
AGPKEAPPWGKEQPLHLEPSPASPTQSPDNLTCTETPLVIAGNPAYRSFSNSLSQSPCPRELGPDP LLARH  
VEPEMPCVPQLSEPTTVPQPEPETWEQILRRNVLQHGA AAAPVSAPTSGYQEFVHAVEQGGTQASAVVGLGPPGE  
AGYKAFSSLLASSAVSPEKCGFGASSGEEGYKPFQDLIPGCPGDPAPVPVPLFTFGLDREPPRSPQSSHL  
PSSSP EHLGLEPGEKVEDMPKPPLPQEATDPLVDSLGS GIVYSALTCHLCGHLKQCHGQEDGGQTPVMA  
SPCCGCCCGD RSSPPTTPLRAPDPSPGGVPLEASLCPASLAPSGI SEKSKSSSSSFHPAGNAQSSSQTPKIVNFVSVGPT  
YMRVS



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**FIGURE 28**

GCCCCATCTCCTTGGGCTGCCCGTGCTTCGTGCTTTGGACTACCGCCCAGCAGTGTCTTGCCCTCTGCCTGGGCC  
TCGGTCCCTCCTGCACCTGCTGCCTGGATCCCCGGCCTGCCTGGGCCTGGGCCTTGGTTCTCCCCATGACACCAC  
CTGAACGTCTCTTCTCCCAAGGGTGTGTGGCACCACCCTACACCTCCTCCTTCTGGGGCTGCTGCTGGTTCTGC  
TGCCTGGGGCCCAAGGGCTCCCTGGTGTGGCCTCACACCTTCAGCTGCCCAGACTGCCCGTCAGCACCCCAAGA  
TGCATCTTGCCACAGCACCTCAAACCTGCTGCTCACCTCATTGGAGACCCAGCAAGCAGAACTCACTGCTCT  
GGAGAGCAAACACGGACCGTGCCTTCCTCCAGGATGGTTTCTCCTTGAGCAACAATTCTCTCCTGGTCCCCACCA  
GTGGCATCTACTTCGTCTACTCCCAGGTGGTCTTCTCTGGGAAAGCCTACTCTCCCAAGGCCACCTCCTCCCCAC  
TCTACCTGGCCCATGAGGTCCAGCTCTTCTCCTCCAGTACCCCTTCCATGTGCCTCTCCTCAGCTCCCAGAAGA  
TGGTGTATCCAGGGCTGCAGGAACCCTGGCTGCACTCGATGTACCACGGGGCTGCGTTCAGCTCACCCAGGGAG  
ACCAGCTATCCACCCACACAGATGGCATCCCCACCTAGTCCTCAGCCCTAGTACTGTCTTCTTGGAGCCTTCG  
CTCTGTTAGAACTTGAAAAATCCAGAAAGAAAAATAATTGATTTCAAGACCTTCTCCCCATTCTGCCTCCATTCT  
TGACCATTTTCAGGGGTCGTCAACACCTCTCCTTTGGCCATTCCAACAGCTCAAGTCTTCCCTGATCAAGTCACCG  
GAGCTTTCAAAGAAGGAATTCTAGGCATCCCAGGGGACCACACCTCCCTGAACCATCCCTGATGTCTGTCTGGCT  
GAGGATTTCAAGCCTGCCTAGGAATTCCCAGCCCAAAGCTGTTGGTCTGTCCCACCAGCTAGGTGGGGCCTAGAT  
CCACACACAGAGGAAGAGCAGGCACATGGAGGAGCTTGGGGGATGACTAGAGGCAGGGAGGGGACTATTTATGAA  
GGCAAAAAAATTAAATTATTTATTTATGGAGGATGGAGAGAGGGGAATAATAGAAGAACATCCAAGGAGAAACAG  
AGACAGGCCCAAGAGATGAAGAGTGAGAGGGCATGCGCACAAGGCTGACCAAGAGAGAAAGAAGTAGGCATGAGG  
GATCACAGGGCCCCAGAAGGCAGGGAAAGGCTCTGAAAGCCAGCTGCCGACCAGAGCCCCACACGGAGGCATCTG  
CACCTTCGATGAAGCCCAATAAACCTCTTTTCTCTG

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**FIGURE 29**

MTPPERLFLPRVCGTTLHLLLGLLLVLLPGAQGLPGVGLTPSAAQTARQHPKMHLAHSTLKPAAHLIGDPSKQN  
SLLWRANTDRAFLQDGFSLSNNSLLVPTSGIYFVYSQVVFSGKAYSPKATSSPLYLAHEVQLFSSQYPFHVPLLS  
SQKMVYPGLQEPWLHSMYHGAAFQLTQGDQLSTHTDGIPHLVLSPSTVFFGAFAL

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**FIGURE 30**

TTCTGCCCTCGAGCCACCGGGAACGAAAGAGAAGCTCTATCTCGCCTCCAGGAGCCCAGCTATGA~~ACT~~CCTTCT  
CCACAAGCGCCTTCGGTCCAGTTGCCTTCTCCCTGGGGCTGCTCCTGGTGTTCCTGCTGCCTTCCCTGCCCCAG  
TACCCCCAGGAGAAGATTCCAAAGATGTAGCCGCCCCACACAGACAGCCACTCACCTCTTCAGAACGAATTGACA  
AACAAATTCGGTACATCCTCGACGGCATCTCAGCCCTGAGAAAGGAGACATGTAACAAGAGTAACATGTGTGAAA  
GCAGCAAAGAGGCACTGGCAGAAAACAACCTGAACCTTCCAAAGATGGCTGAAAAAGATGGATGCTTCCAATCTG  
GATTCAATGAGGAGACTTGCCTGGTGAAAATCATCACTGGTCTTTTGGAGTTTGAGGTATACCTAGAGTACCTCC  
AGAACAGATTTGAGAGTAGTGAGGAACAAGCCAGAGCTGTGCAGATGAGTACAAAAGTCCTGATCCAGTTCCTGC  
AGAAAAAGGCAAAGAATCTAGATGCAATAACCACCCCTGACCCAACCACAAATGCCAGCCTGCTGACGAAGCTGC  
AGGCACAGAACCAGTGGCTGCAGGACATGACAACTCATCTCATTCTGCGCAGCTTTAAGGAGTTCCTGCAGTCCA  
GCCTGAGGGCTCTTCGGCAAATGTAGCATGGGCACCTCAGATTGTTGTTGTTAATGGGCATTCTTCTTCTGGTC  
AGAAACCTGTCCACTGGGCACAGAAGTTATGTTGTTCTCTATGGAGAACTAAAAGTATGAGCGTTAGGACACTAT  
TTTAATTATTTTTAATTTATTAATATTTAAATATGTGAAGCTGAGTTAATTTATGTAAGTCATATTTATATTTTT  
AAGAAGTACCACTTGAAACATTTTATGTATTAGTTTTGAAATAATAATGGAAAGTGGCTATGCAGTTTGAATATC  
CTTTGTTTCAGAGCCAGATCATTTCTTGAAAGTGTAGGCTTACCTCAAATAAATGGCTAACTTATACATATTTT  
TAAAGAAATATTTATATTGTATTTATATAATGTATAAATGGTTTTTATACCAATAAATGGCATTTTAAAAAATTC

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**FIGURE 31**

MNSFSTSAFGPVAFSLGLLLVLPAAFPAPVPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGISALRKETCNKS  
NMCESSKEALAENNLNLPKMAEKDGCFSGFNEETCLVKIITGLLEFEVYLEYLQNRFESSEEQARAVQMSTKVL  
IQFLQKKAKNLDAITTPDPTTNASLLTKLQAQNQWLQDMTTHLILRSFKEFLQSSLRALRQM

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**FIGURE 32**

CAGGACTGCCTGAGACAAGCCACAAGCTGAACAGAGAAAGTGGATTGAACAAGGACGCATTTCCCCAGTACATCC  
ACAACATGCTGTCCACATCTCGTTCTCGGTTTATCAGAAATACCAACGAGAGCGGTGAAGAAGTCACCACCTTTT  
TTGATTATGATTACGGTGTCTCCCTGTCATAAATTTGACGTGAAGCAAATTGGGGCCCAACTCCTGCCTCCGCTCT  
ACTCGCTGGTGTTCATCTTTGGTTTTGTGGGCAACATGCTGGTGCCTCATCTTAATAAACTGCAAAAAGCTGA  
AGTGCTTGACTGACATTTACCTGCTCAACCTGGCCATCTCTGATCTGCTTTTTCTTATTACTCTCCCATTGTGGG  
CTCACTCTGCTGCAAATGAGTGGGTCTTTGGGAATGCAATGTGCAAATTATTACAGGGGCTGTATCACATCGGTT  
ATTTTGGCGGAATCTTCTTCATCATCCTCCTGACAATCGATAGATACCTGGCTATTGTCATGCTGTGTTTGCTT  
TAAAAGCCAGGACGGTCACCTTTGGGGTGGTGACAAGTGTGATCACCTGGTTGGTGGCTGTGTTTGCTTCTGTCC  
CAGGAATCATCTTTACTAAATGCCAGAAAGAAGATTCTGTTTTATGTCTGTGGCCCTTATTTTCCACGAGGATGGA  
ATAATTTCCACACAATAATGAGGAACATTTTGGGGCTGGTCTCTGCCGCTGCTCATCATGGTCATCTGCTACTCGG  
GAATCCTGAAAACCCCTGCTTCGGTGTGCGAAACGAGAAGAAGAGGCATAGGGCAGTGAGAGTCATCTTCACCATCA  
TGATTGTTTACTTTCTCTTCTGGACTCCCTATAACATTGTCAATTCTCCTGAACACCTTCCAGGAATTCTTCGGCC  
TGAGTAACTGTGAAAGCACCAGTCAACTGGACCAAGCCACGCAGGTGACAGAGACTCTTGGGATGACTCACTGCT  
GCATCAATCCCATCATCTATGCCTTCGTTGGGGAGAAGTTCAGAAGGTATCTCTCGGTGTTCTTCCGAAAGCACA  
TCACCAAGCGCTTCTGCAAACAATGTCCAGTTTTCTACAGGGAGACAGTGGATGGAGTGAATCAACAAACACGC  
CTTCCACTGGGGAGCAGGAAGTCTCGGCTGGTTTTATAAAACGAGGAGCAGTTTGATTGTTGTTTATAAAGGGAGA  
TAACAATCTGTATATAACAACAACTTCAAGGGTTTGTGGAACAATAGAAACCTGTAAAGCAGGTGCCCAGGAAC  
CTCAGGGCTGTGTGTACTAATACAGACTATGTCACCCAATGCATATCCAACATGTGCTCAGGGAATAATCCAGAA  
AACTGTGGGTAGAGACTTTGACTCTCCAGAAAGCTCATCTCAGCTCCTGAAAAATGCCTCATTACCTTGTGCTA  
ATCCTCTTTTTCTAGTCTTCATAATTTCTTCACTCAATCTCTGATTCTGTCAATGTCTTGAAATCAAGGGCCAGC  
TGGAGGTGAAGAAGAGAATGTGACAGGCACAGATGAATGGGAGTGAGGGATAGTGGGGTCAGGGCTGAGAGGAGA  
AGGAGGGAGACATGAGCATGGCTGAGCCTGGACAAAGACAAAGGTGAGCAAAGGGCTCACGCATTACAGCCAGGAG  
ATGATACTGGTCCCTTAGCCCCATCTGCCACGTGTATTTAACCTTGAAGGGTTCACCAGGTGAGGGAGAGTTGGG  
AACTGCAATAACCTGGGAGTTTTGGTGGAGTCCGATGATTCTCTTTGCATAAGTGCATGACATATTTTTGCTTT  
ATTACAGTTTATCTATGGCACCCATGCACCTTACATTTGAAATCTATGAAATATCATGCTCCATTGTTTCAGATGC  
TTCTTAGGCCACATCCCCCTGTCTAAAAATTCAGAAATTTTTGTTTATAAAAGATGCATTATCTATGATATGCT  
AATATATGTATATGCAATATAAAATTTAG

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**FIGURE 33**

MLSTSRSRFIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFGFVGNMLVVLILINCKKLKC  
LTDIYLLNLAISDLLFLITLPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGGIFFIILLTIDRYLAIVHAVFALK  
ARTVTFGVVTSVITWLVAVFASVPGIIFTKCQKEDSVYVCGPYFPRGWNNFHTIMRNILGLVLP LLIMVICYSGI  
LKTLLRCRNEKKRHRAVRVIFTIMIVYFLFWTPYNIVILLNTFQEFFGLSNCESTSQLDQATQVTETLGMTHCCI  
NP IIYAFVGEKFRRYLSVFFRKHITKRFCKQCPVFYRETVDGVTSTNTPSTGEQEV SAGL

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**FIGURE 34**

GGAAACATGATCCAGCTGAAGGACTGATTGCAGGAAAACCTTGGCAGCTCCCCAACCTTGGTGGCCCAGGGAGTGT  
GAGGCTGCAGCCTCAGAAGGTGTGAGCAGTGGCCACGAGAGGCAGGCTGGCTGGGACATGAGGTTGGCAGAGGGC  
AGGCAAGCTGGCCCTTGGTGGGCCTCGCCCTGAGCACTCGGAGGCACTCCTATGCTTGGAAAGCTCGCT**ATG**CTG  
CTGTGGGTCCAGCAGGCGCTGCTCGCCTTGCTCCTCCCCACACTCCTGGCACAGGGAGAAGCCAGGAGGAGCCGA  
AACACCACCAGGCCCCGCTCTGCTGAGGCTGTGGATTACCTTTTGACCAACTACAGGAAGGGTGTGCGCCCCGTG  
AGGACTGGAGGAAGCCAACCACCGTATCCATTGACGTCATTGTCTATGCCATCCTCAACGTGGATGAGAAGAAT  
CAGGTGCTGACCACCTACATCTGGTACCGGCAGTACTGGACTGATGAGTTTCTCCAGTGAACCCCTGAGGACTTT  
GACAACATCACCAAGTTGTCCATCCCCACGGACAGCATCTGGGTCCCGGACATTCTCATCAATGAGTTCGTGGAT  
GTGGGGAAGTCTCCAAATATCCCGTACGTGTATATTCGGCATCAAGGCGAAGTTCAGAACTACAAGCCCCCTTCAG  
GTGGTGAAGTGCCTGTAGCCTCGACATCTACAACCTCCCTTCGATGTCCAGAACTGCTCGCTGACCTTCACCAGT  
TGGCTGCACACCATCCAGGACATCAACATCTCTTTGTGGCGCTTGCCAGAAAAGGTGAAATCCGACAGGAGTGT  
TTTATGAACCAGGGAGAGTGGGAGTTGCTGGGGGTGCTGCCCTACTTTTCGGGAGTTCAGCATGGAAAGCAGTAAC  
TACTATGCAGAAATGAAGTTCTATGTGGTCATCCGCCGGCGGCCCTCTTCTATGTGGTCAGCCTGCTACTGCCC  
AGCATCTTCTCATGGTCATGGACATCGTGGGCTTCTACCTGCCCCCAACAGTGGCGAGAGGGTCTCTTTCAAG  
ATTACACTCCTCCTGGGCTACTCGGTCTTCTGATCATCGTTTCTGACACGCTGCCGGCCACTGCCATCGGCACT  
CCTCTCATTGGTGTCTACTTTGTGGTGTGCATGGCTCTGCTGGTGATAAGTTTGGCCGAGACCATCTTCATTGTG  
CGGCTGGTGCACAAGCAAGACCTGCAGCAGCCCGTGCTGCTGGCTGCGTCACCTGGTTCTGGAGAGAATCGCC  
TGGCTACTTTGCCTGAGGGAGCAGTCAACTTCCAGAGGCCCCCAGCCACCTCCCAAGCCACCAAGACTGATGAC  
TGCTCAGCCATGGGAAACCACTGCAGCCACATGGGAGGACCCAGGACTTCGAGAAGAGCCCGAGGGACAGATGT  
AGCCCTCCCCCACCACCTCGGGAGGCCTCGCTGGCGGTGTGTGGGCTGCTGCAGGAGCTGTCTCCATCCGGCAA  
TTCTTGAAAAGCGGGATGAGATCCGAGAGGTGGCCCGAGACTGGCTGCGCGTGGGCTCCGTGCTGGACAAGCTG  
CTATTCCACATTTACCTGCTAGCGGTGCTGGCCTACAGCATCACCCTGGTTATGCTCTGGTCCATCTGGCAGTAC  
GCT**TGAG**TGGGTACAGCCCAGTGGAGGAGGGGTACAGTCCIGGTTAGGTGGGGACAGAGGATTTCTGCTTAGGC  
CCCTCAGGACCCAGGGAATGCCAGGGACATTTTCAAGACACAGACAAAGTCCCGTGCCCTGTTTCCAATGCCAAT  
TCATCTCAGCAATCACAAGCCAAGGTCTGAACCCTTCCACCAAAAACCTGGGTGTTCAAGGCCCTTACACCCTTGT  
CCCACCCCCAGCAGCTCACCATGGCTTTAAAACATGCTCTCTTAGATCAGGAGAACTCGGGCACTCCCTAAGTC  
CACTCTAGTTGTGGACTTTTCCCCATTGACCCTCACCTGAATAAGGGACTTTGGAATTCTGCTTCTCTTTCACAA  
CTTTGCTTTTAGGTTGAAGGCAAAAACCAACTCTCTACTACACAGGCCTGATAACTCTGTACGAGGCTTCTCTAAC  
CCCTAGTGTCTTTTTTTTTCTTACCTCACTTGTGGCAGCTTCCCTGAACACTCATCCCCCATCAGATGATGGGAG  
TGGGAAGAATAAAATGCAGTGAAACCC

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**FIGURE 35**

MLLWVQQALLALLPTLLAQGEARRSRNTTRPALLRLSDYLLTNYRKGVPRVDRWKPTTVSIDVIVYAILNVDE  
KNQVLTTYIWYRQYWTDEFLQWNPEDFDNITKLSIPTDSIWVPDILINEFVDVGKSPNIPYVYIRHQGEVQNYKP  
LQVVTACSLDIYNFPFDVQNCSTFTSWLHTIQDINISLWRLPEKVKSDRSVFMNQGEWELLGVLPYFREFSMES  
SNYYAEMKFYVVIRRRPLFYVVSLLLPSIFLMVMDIVGFYLPNSGERVSFKITLLLGYSVFLIIVSDTLPATAI  
GTPLIGVYFVVCMA LLVISLAETIFIVRLVHKQDLQQPVPAWLRHLVLERIAWLLCLREQSTSQRPPATSQATKT  
DDCSAMGNHCSHMGGPQDFEKSPDRDCSPPPPPREASLAVCGLLQELSSIRQFLEKRDEIREVARDWLRVGSVLD  
KLLFHIYLLAVLAYSITLVMLWSIWQYA



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**FIGURE 36A**

CGGAGCGCAGCGGAGCCTGGAGAGAAGGCGCTGGGCTGCGAGGGCGCGAGGGCGCGAGGGGCAACCGGA  
CCCCGCCCCGACCCATGGCGCCCGTCGCCGTCTGGGCCGCGCTGGCCGTCGGA CTGGAGCTCTGGGCTGCGGGCGC  
ACGCCTTGCCCGCCAGGTGGCATTACACCTACGCCCGGAGCCCGGGAGCACATGCCGGCTCAGAGAATACT  
ATGACCAGACAGCTCAGATGTGCTGCAGCAAATGCTCGCCGGGCCAACATGCAAAAGTCTTCTGTACCAAGACCT  
CGGACACCGTGTGTGACTCCTGTGAGGACAGCACATACACCCAGCTCTGGA ACTGGGTTCCTCGAGTGCTTGAGCT  
GTGGCTCCCGCTGTAGCTCTGACCAGGTGGA AACTCAAGCCTGCACTCGGGAACAGAACC GCATCTGCACCTGCA  
GGCCCGGCTGGTACTGCGCGCTGAGCAAGCAGGAGGGGTGCCGGCTGTGCGCGCCGCTGCGCAAGTGCCGCCCCG  
GCTTCGGCGTGGCCAGACCAGGA ACTGAAACATCAGACGTGGTGTGCAAGCCCTGTGCCCCGGGGACGTTCTCCA  
ACAGACTTCATCCACGGATATTTGCAGGCCCCAC CAGATCTGTAACGTGGTGGCCATCCCTGGGAATGCAAGCA  
TGGATGCAGTCTGCACGTCCACGTCCCCCACC GGAGTATGGCCCCAGGGGCAGTACACTTACCCAGCCAGTGT  
CCACAGATCCCAACACACGCAGCCAACTCCAGAA CCCCAGCACTGCTCCAAGCACCTCCTTCTGCTCCCAATGG  
GCCCCAGCCCCCAGCTGAAGGGAGCACTGGCGACTTCGCTCTTCCAGTGGACTGATTGTGGGTGTGACAGCCT  
TGGGTCTACTAATAATAGGAGTGGTGA ACTGTGTCAATCATGACCCAGGTGAAAAAGAAGCCCTTGTGCCTGCAGA  
GAGAAGCCAAGGTGCCTCACTTGCCTGCCGATAAGGCCCGGGGTACACAGGGCCCCGAGCAGCAGCACCTGCTGA  
TCACAGCGCCGAGCTCCAGCAGCAGCTCCCTGGGAGAGCTCGGCCAGTGCGTTGGACAGAAGGGCGCCCACTCGGA  
ACCAGCCACAGGCACCAGGCGTGGAGGCCAGTGGGGCCGGGGAGGCCCGGGCCAGCACCGGGAGCTCAGATTCTT  
CCCCTGGTGGCCATGGGACCCAGGTCAATGTCA CCTGCATCGTGAACGTCTGTAGCAGCTCTGACCACAGCTCAC  
AGTGCTCCTCCCAAGCCAGCTCCACAATGGGAGACACAGATTCCAGCCCCTCGGAGTCCCCGAAGGACGAGCAGG  
TCCCCTTCTCCAAGGAGGAATGTGCCTTTCCG GTCACAGCTGGAGACGCCAGAGACCCTGCTGGGGAGCACCGAAG  
AGAAGCCCCCTGCCCTTGGAGTGCCTGATGCTGGGATGAAGCCCACTTAACCAGGCCGGTGTGGGCTGTGTGTA  
GCCAAGGTGGGCTGAGCCCTGGCAGGATGACCCTGCGAAGGGGCCCTGGTCTTCCAGGGCCCCACCACTAGGAC  
TCTGAGGCTCTTTCTGGGCCAAGTTCTCTAGTGCCTCCACAGCCGACGCTCCCTCTGACCTGCAGGCCAAGA  
GCAGAGGCAGCGAGTTGGGGAAGCCTCTGCTGCCATGGTGTGTCCCTCTCGGAAGGCTGGCTGGGCATGGACGT  
TCGGGGCATGCTGGGGCAAGTCCCTGACTCTCTGTGACCTGCCCCGCCAGCTGCACCTGCCAGCCTGGCTTCTG  
GAGCCCTTGGGTTTTTTGTTTGTGTTGTTGTTGTTGTTGTTGTTGTTTCTCCCCCTGGGCTCTGCCAGCTCTGGCTT  
CCAGAAAACCCCAGCATCCTTTTCTGCAGAGGGGCTTTCTGGAGAGGAGGGATGCTGCCTGAGTCACCCATGAAG  
ACAGGACAGTGCTTCAGCCTGAGGCTGAGACTGCGGGATGGTCTCTGGGCTCTGTGTAGGGAGGAGGTGGCAGCC  
CTGTAGGGAACGGGTCTTTCAAGTTAGCTCAGGAGGCTTGGAAGCATCACCTCAGGCCAGGTGCAGTGGCTCA  
CGCCTATGATCCCAGCACTTTGGGAGGCTGAGGCGGGTGGATCACCTGAGGTTAGGAGTTCGAGACCAGCCTGGC  
CAACATGGTAAAACCCCATCTCTACTAAAAATACAGAAATTAGCCGGGCGTGGTGGCGGGCACCTATAGTCCCAG  
CTACTCAGAAGCCTGAGGCTGGGAAATCGTTTGAACCCGGGAAGCGGAGGTTGCAGGGAGCCGAGATCACGCCAC  
TGCACCTCCAGCCTGGGCGACAGAGCGAGAGTCTGTCTCAAAAGAAAAAAAAAAAAAGCACCGCCTCCAAATGCTAA  
CTTGTCCTTTTGTACCATGGTGTGAAAGTCAGATGCCAGAGGGCCAGGCAGGCCACCATATTAGTGCTGTGG  
CCTGGGCAAGATAACGCACTTCTAACTAGAAATCTGCCAATTTTTTAAAAAAGTAAGTACCCTCAGGCCAACAA  
GCCAACGACAAAGCCAAACTCTGCCAGCCACATCCAACCCCCACCTGCCATTTGCACCTCCGCCTTCACTCCG  
GTGTGCCTGCAGCCCCGCGCCTCCTTCTTGTGTCTTAGGCCACACCATCTCCTTTCAGGGAATTCAGGAACT  
AGAGATGACTGAGTCTCTAGCCATCTCTCTACTCCTACCTCAGCCTAGACCCTCCTCCTCCCCAGAGGGGTG  
GGTTCCTCTTCCCCACTCCCCACCTTCAATTCTGGGCCCCAAACGGGCTGCCCTGCCACTTTGGTACATGGCCA  
GTGTGATCCCAAGTGCCAGTCTTGTGTCTGCGTCTGTGTTGCGTGTCTGTTGGTGTGTAGCCAAGGTCGGTAAG  
TTGAATGGCCTGCCTTGAAGCCACTGAAGCTGGGATTCTCCCCATTAGAGTCAGCCTTCCCCCTCCAGGGCCA  
GGGCCCTGCAGAGGGGAAACCAGTGTAGCCTTGCCCGGATTCTGGGAGGAAGCAGGTTGAGGGGCTCCTGGAAG  
GCTCAGTCTCAGGAGCATGGGGATAAAGGAGAAGGCATGAAATTGTCTAGCAGAGCAGGGGCAGGGTGATAAATT  
GTTGATAAATTCCACTGGACTTGAGCTTGGCAGCTGAACTATTGGAGGGTGGGAGAGCCCAGCCATTACCATGGA  
GACAAGAAGGGTTTTCCACCCTGGAATCAAGATGTGAGACTGGCTGGCTGCAGTGACGTGCACCTGTACTCAGGA  
GGCTGAGGGGAGGATCACTGGAGCCCAGGAGTTTGAGGCTGCAGCGAGCTATGATCGCGCCACTACACTCCAGCC  
TGAGCAACAGAGTGAGACCCTGTCTCTTAAAGAAAAAAAAGTCAGACTGCTGGGACTGGCCAGGTTTCTGCCCA  
CATTGGACCCACATGAGGACATGATGGAGCGCACC TGCCCCCTGGTGGACAGTCTTGGGAGAACCTCAGGCTTCC  
TTGGCATCACAGGGCAGAGCCGGGAAGCGATGAATTTGGAGACTCTGTGGGCCTTGGTTCCCTTGTGTGTGTGT

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**FIGURE 36B**

GTTGATCCCAAGACAATGAAAGTTTGCACGTGTATGCTGGACGGCATTCTGCTTATCAATAAACCTGTTTGTTTT  
AAAAAAAA

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**FIGURE 37**

MAPVAVWAALAVGLELWAAAHALPAQVAFTPYAPEPGSTCRLREYYDQTAQMCCSKCSPGQHAKVFCTKTSDTV  
DSCEDSTYTQLWNWVPECLSCGSRCSDDQVETQACTREQNRICTRPGWYCALSQEGCRLCAPLRKCRPGFGVA  
RPGTETSDVVCKPCAPGTFSNTTSSTDICRPHQICNVVAIPGNASMDAVCTSTSPTRSMAPGAVHLPQPVSTRSQ  
HTQPTPEPSTAPSTSFLPMGPPPAEGSTGDFALPVGLIVGVTALGLLIIGVVNCVIMTQVKKKPLCLQREAKV  
PHLPADKARGTQGPEQQHLLITAPSSSSSSLESSASALDRRAPTRNQPPAPGVEASGAGEARASTGSSDSSPGGH  
GTQVNVTCIVNVCSSSDHSSQCSSQASSTMGDTDSSPSESPKDEQVPFSKEECAFRSQLETPETLLGSTEEKPLP  
LGVPDAGMKPS

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**FIGURE 38**

GGGCGGGTAGTCGACCGTGTCCGCGCGCCTGGGAGACGCTGCCTCGGCCCGGACGCGCCCGCGCCCCGCGGGCTG  
GAGGGTGGTCGCCACTGGGACACTGTGAACCAGGAGTGAGTCGGAGCTGCCGCGCTGCCCAGGCCATGGACTGTG  
AGGTCAACAACGGTTCCAGCCTCAGGGATGAGTGCATCACAAACCTACTGGTGTTTGGCTTCCTCCAAAGCTGTT  
CTGACAACAGCTTCCGCAGAGAGCTGGACGCACTGGGCCACGAGCTGCCAGTGCTGGCTCCCCAGTGGGAGGGCT  
ACGATGAGCTGCAGACTGATGGCAACCGCAGCAGCCACTCCCGCTTGGAAGAATAGAGGCAGATTCTGAAAGTC  
AAGAAGACATCATCCGGAATATTGCCAGGCACCTCGCCAGGTGCGGGACAGCATGGACCGTAGCATCCCTCCGG  
GCCTGGTGAACGGCCTGGCCCTGCAGCTCAGGAACACCAGCCGGTCGGAGGAGGACCGGAACAGGGACCTGGCCA  
CTGCCCTGGAGCAGCTGCTGCAGGCCTACCCTAGAGACATGGAGAAGGAGAAGACCATGCTGGTGCTGGCCCTGC  
TGCTGGCCAAGAAGGTGGCCAGTCACACGCCGTCTTGCTCCGTGATGTCTTTCACACAACAGTGAATTTTATTA  
ACCAGAACCTACGCACCTACGTGAGGAGCTTAGCCAGAAATGGGATGGACTGAACGGACAGTTCAGAAGTGTGA  
CTGGCTAAAGCTTGATGTGGTCACAGCTGTATAGCTGCTTCCAGTGTAGACGGAGCCCTGGCATGTCAACAGCGT  
TCCTAGAGAAGACAGGCTGGAAGATAGCTGTGACTTCTATTTTAAAGACAATGTTAAACTTATAACCCACTTTAA  
AATATCTACATTAATATACTTGAATGAAAATGTCCATTTACACGTATTTGAATGGCCTTCATATCATCCACACAT  
GAATCTGCACATCTGTAAATCTACACACGGTGCCTTTATTTCCACTGTGCAGGTTCCCACTTAAAAATTAAATTG  
GAAAGCAGGTTTCAAGGAAGTAGAAACAAAATACAATTTTTTTTGGTAAAAAAAAA

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**FIGURE 39**

MDCEVNNGSSLRDECITNLLVFGFLQSCSDNSFRRELDALGHELPVLAPQWEGYDELQTDGNRSSHSLRGRIEAD  
SESQEDIIRNIARHLAQVGDSMDRSIPPGLVNGLALQLRNTSRSEEDRNRDLATALEQLLQAYPRDMEKEKTMV  
LALLLAKKVASHTPSLLRDVFHTTVNFINQNLRTYVRSLARNGMD

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**FIGURE 40**

GTCAGCAGAGGCCTCGCTCGGGCGCCAGTGGTCC TGCCGCCTGGTCTCACCTCGCTATGGTTCGTCTGCCTCTG  
CAGTGCGTCCTCTGGGGCTGCTTGCTGACCGCTGTCCATCCAGAACCACCCACTGCATGCAGAGAAAAACAGTAC  
CTAATAAACAGTCAGTGCTGTTCTTTGTGCCAGCCAGGACAGAACTGGTGAGTGACTGCACAGAGTTCACTGAA  
ACGGAATGCCTTCCTTGCGGTGAAAGCGAATTCCTAGACACCTGGAACAGAGAGACACACTGCCACCAGCACAAA  
TACTGCGACCCCAACCTAGGGCTTCGGGTCCAGCAGAAGGGCACCTCAGAAACAGACACCATCTGCACCTGTGAA  
GAAGGCTGGCACTGTACGAGTGAGGCCTGTGAGAGCTGTGTCTGCACCGCTCATGCTCGCCCGGCTTTGGGGTC  
AAGCAGATTGCTACAGGGGTTTCTGATACCATCTGCGAGCCCTGCCCAGTCGGCTTCTTCTCCAATGTGTCATCT  
GCTTTCGAAAAATGTCACCCCTTGGACAAGCTGTGAGACCAAAGACCTGGTTGTGCAACAGGCAGGCACAAACAAG  
ACTGATGTTGTCTGTGGTCCCCAGGATCGGCTGAGAGCCCTGGTGGTGATCCCCATCATCTTCGGGATCCTGTTT  
GCCATCCTCTTGGTGCTGGTCTTTATCAAAAAGGTGGCCAAGAAGCCAACCAATAAGGCCCCCCACCCCAAGCAG  
GAACCCCAGGAGATCAATTTTCCCAGCATCTTCTGGCTCCAACACTGCTGCTCCAGTGCAAGGAGACTTTACAT  
GGATGCCAACC GGTCACCCAGGAGGATGGCAAAGAGAGTCGCATCTCAGTGCAAGGAGAGACAGTGAGGCTGCACC  
CACCCAGGAGTGTGGCCACGTGGGCAAACAGGCAGTTGGCCAGAGAGCCTGGTGCTGCTGCTGTGGCGTGAG  
GGTGAGGGGCTGGCACTGACTGGGCATAGCTCCCCGTTCTGCCTGCACCCCTGCAGTTTGAGACAGGAGACCTG  
GCACTGGATGCAGAAACAGTTCACCTTGAAGAACC TCTCACTTCACCCCTGGAGCCCCATCCAGTCTCCCAACTTGT  
ATTAAAGACAGAGGCAGAAAAA

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**FIGURE 41**

MVRLPLQCVLWGCLLTAVHPEPPTACREKQYLINSQCCSLCQPGQKLVS DCTEFTETECLPCGESEFLDTWNRET  
HCHQH KYCDPNLGLRVQQKGTSETDTICTCEEGWHCTSEACESCVLHRSCSPGFGVKQIATGVSDTICEPCPVGF  
FSNVSSAFEKCHPWTSCETKDLVVQQAGTNKTDVVCGPQDRRLRALVVIPIIFGILFAILLVLVFIKKVAKKPTNK  
APHPKQEPQEINFPDDLPGSNTAAPVQETLHGCQPVTQEDGKESRISVQERQ

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**FIGURE 42**

**ATG**CGGGGCGTGTGGCCGCCCCCGGTGTCCGCCCTGCTGTCCGCGCTGGGGATGTCGACGTACAAGCGGGCCACG  
CTGGACGAGGAGGACCTGGTGGACTCGCTCTCCGAGGGCGACGCATACCCCAACGGCCTGCAGGTGAACTTCCAC  
AGCCCCCGAGTGGCCAGAGGTGCTGGGCTGCACGGACCCAGGTGGAGAAGCGGCTGGTGGTGTGGTGGTACTT  
CTGGCGGCAGGACTGGTGGCCTGCTTGGCAGCACTGGGCATCCAGTACCAGACAAGATCCCCCTCTGTGTGCCTG  
AGCGAAGCTTGTGTCTCAGTGACCAGCTCCATCTTGAGCTCCATGGACCCACAGTGGACCCCTGCCATGACTTC  
TTCAGCTACGCCTGTGGGGGCTGGATCAAGGCCAACCCAGTCCCTGATGGCCACTCACGCTGGGGGACCTTCAGC  
AACCTCTGGGAACACAACCAAGCAATCATCAAGCACCTCCTCGAAAACCTCCACGGCCAGCGTGAGCGAGGCAGAG  
AGAAAGGCGCAAGTATACTACCGTGCCTGCATGAACGAGACCAGGATCGAGGAGCTCAGGGCCAAACCTCTAATG  
GAGTTGATTGAGAGGCTCGGGGGCTGGAACATCACAGGTCCCTGGGCCAAGGACAACCTCCAGGACACCCTGCAG  
GTGGTCAACGCCCCACTACCGCACCTACCCCTTCTTCTGTCTATGTCAAGTCCGATTCCAAGAACTCCAACAGC  
AACGTGATCCAGGTGGACCAGTCTGGCCTGGGCTTGGCCTCGAGAGACTATTACCTGAACAAAACCTGAAAACGAG  
AAGGTGCTGACCGGATATCTGAACCTACATGGTCCAGCTGGGGAAGCTGCTGGGCGGCGGGGACGAGGAGGCCATC  
CGGCCCCAGATGCAGCAGATCTTGACTTTGAGACGGCACTGGCCAACATCACCATCCACAGGAGAAGCGCCGT  
GATGAGGAGCTCATCTACCACAAAGTGACGGCAGCCGAGCTGCAGACCTTGGCACCCGCCATCAACTGGTTGCCT  
TTTCTCAACACCATCTTCTACCCCGTGGAGATCAATGAATCCGAGCCTATTGTGGTCTATGACAAGGAATACCTT  
GAGCAGATCTCCACTCTCATCAACACCACCGACAGATGCCTGCTCAACAACCTACATGATCTGGAACCTGGTGCAG  
AAAACAAGCTCCTTCCTTGACCAGCGCTTTCAGGACGCCGATGAGAAGTTCATGGAAGTCATGTACGGGACCAAG  
AAGACCTGTCTTCCTCGCTGGAAGTTTTGCGTGAGTGACACAGAAAACAACCTGGGCTTTGCGTTGGGCCCCATG  
TTTGTCAAAGCAACCTTCGCCGAGGACAGCAAGAGCATAGCCACCGAGATCATCCTGGAGATTAAGAAGGCATTT  
GAGGAAAGCCTGAGCACCCCTGAAGTGGATGGATGAGGAAACCCGAAAATCAGCCAAGGAAAAGGCCGATGCCATC  
TACAACATGATAGGATACCCCAACTTCATCATGGATCCCAAGGAGCTGGACAAAGTGTTTAATGACTACACTGCA  
GTTCCAGACCTCTACTTTGAAAATGCCATGCGGTTTTTCAACTTCTCATGGAGGGTCACTGCCGATCAGCTCAGG  
AAAGCCCCCAACAGAGATCAGTGGAGCATGACCCCGCCATGGTGAACGCCTACTACTCGCCACCAAGAATGAG  
ATTGTGTTTTCCGGCCGGGATCCTGCAGGCACCATTTACACACGCTCCTCACCCAAGGCCTTAACTTTGGTGGC  
ATAGGTGTGCTCGTGGGCCATGAGCTGACTCATGCTTTTGATGATCAAGGACGGGAGTATGACAAGGACGGGAAC  
CTCCGGCCATGGTGAAGAACTCATCCGTGGAGGCCTTCAAGCGTCAGACCGAGTGCATGGTAGAGCAGTACAGC  
AACTACAGCGTGAACGGGGAGCCGGTGAACGGGCGGCACACCCTGGGGGAGAACATCGCCGACAACGGGGGTCTC  
AAGGCGGCCTATCGGGCTTACCAGAACTGGGTGAAGAAGAACGGGGCTGAGCACTCGCTCCCCACCCTGGGCCTC  
ACCAATAACCAGCTCTTCTTCCTGGGCTTTGCACAGGTCTGGTGTCTCCGTCCGCACACCTGAGAGCTCCACGAA  
GGCCTCATCACCGATCCCCACAGCCCCCTCTCGCTTCCGGGTATCGGCTCCCTCTCCAATTCCAAGGAGTTCTCA  
GAACACTTCCGCTGCCCACCTGGCTCACCCATGAACCCGCCTCACAAGTGCGAAGTCTGGT**TAA**GGACGAAGCGGA  
GAGAGCCAAGACGGAGGAGGGGAAGGGGCTGAGGACGAGACCCCCATCCAGCCTCCAGGGCATTGCTCAGCCCCG  
TTGGCCACC



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**FIGURE 43**

MRGVWPPPVVSALLSALGMSTYKRATLDEEDLVDSLSEGDAYPNGLQVNFHSPRSGQRCWAARTQVEKRLVVLVVL  
LAAGLVACLAALGIQYQTRSPSVCLSEACVSVTSSILSSMDPTVDPCHDFFSYACGGWIKANPVPDGHSRWGTFS  
NLWEHNQAI IKHLENSTASVSEAERKAQVYYRACMNETRIEELRAKPLMELIERLGGWNITGPWAKDNFQDTLQ  
VVTAHYRTSPFFSVYVSADSKNSNSNVIQVDQSGLG LPSRDYYLNKTENEKVL TGYLNYMVQLGKLLGGGDEEAI  
RPQMQQILD FETALANITIPQEKRRDEELIYHKVTA AELQTLAPAINWLPFLNTIFYPVEINESEPIVVYDKEYL  
EQISTLINTTDRCLLN NYMIWNLVRKTSSFLDQRFQDADEKFMEVMYGT KKTCLPRWKFCVSDTENN LGFALGPM  
FVKATFAEDSKSIATEIILEIKKAFEE SLSTLKWMDEETR KSAKEKADAIYNMIGYPNFIMDPKELDKVFNDYTA  
VPDLYFENAMRFFNF SWRV TADQLRKAPNRDQWSMT PPMVNAYYSPTKNEIVFPAGILQAPFYTRSSPKALNFGG  
IGVVVGHELTHAFDDQGREYDKDGNLRPWWKNSSVEAFKRQTECMVEQYSNYSVNGEPVNGRHTLGENIADNGGL  
KAAYRAYQNWVKNGAEHSLPTLGLTNNQLFFLGFAQVWCSVRTPESSHEGLITDPHSPSRFRVIGSLSNSKEFS  
EHFRCPPGSPMNPPHKCEVW

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## FIGURE 44A

TGCCAAGGCTCCAGCCCGGCCGGGCTCCGAGGCGAGAGGCTGCATCGAGTGGCCGGCGCGGCTCTGCGGGCTGTG  
GGCGCTGCTGCTCTGCGCCGGCGGGGCGGGGCGGGGCGCCGCGCCTACGGAAACTCAGCCACCTGTGAC  
AAATTTGAGTGTCTCTGTTGAAAACCTCTGCACAGTAATATGGACATGGAATCCACCCGAGGGAGCCAGCTCAAA  
TTGTAGTCTATGGTATTTTAGTCATTTTGGCGACAAACAAGATAAGAAAATAGCTCCGGAAACTCGTCGTTCAAT  
AGAAGTACCCCTGAATGAGAGGATTGTCTGCAAGTGGGGTCCAGTGTAGCACCAATGAGAGTGAGAAGCCTAG  
CATTTTGGTTGAAAAATGCATCTCACCCCCAGAAGGTGATCCTGAGTCTGCTGTGACTGAGCTTCAATGCATTTG  
GCACAACCTGAGCTACATGAAGTGTCTTGGCTCCCTGGAAGGAATACCAGTCCCGACACTAACTATACTCTCTA  
CTATTGGCACAGAAGCCTGGAAAAAATTCATCAATGTGAAAACATCTTTAGAGAAGGCCAATACTTTGGTTGTTT  
CTTTGATCTGACCAAAGTGAAGGATTCCAGTTTGAACAACACAGTGTCCAAATAATGGTCAAGGATAATGCAGG  
AAAAATTAAACCATCCTTCAATATAGTGCCTTTAACTTCCCGTGTGAAACCTGATCCTCCACATATTA AAAACCT  
CTCCTTCCACAATGATGACCTATATGTGCAATGGGAGAATCCACAGAATTTTATTAGCAGATGCCTATTTTATGA  
AGTAGAAGTCAATAACAGCCAAACTGAGACACATAATGTTTTCTACGTCCAAGAGGCTAAATGTGAGAATCCAGA  
ATTTGAGAGAAATGTGGAGAATACATCTTGTTTCATGGTCCCTGGTGTCTTCTGATACTTTGAACACAGTCAG  
AATAAGAGTCAAAACAAATAAGTTATGCTATGAGGATGACAACTCTGGAGTAATTGGAGCCAAGAAATGAGTAT  
AGGTAAGAAGCGCAATTCCACACTCTACATAACCATGTTACTCATTGTTCCAGTCATCGTCGAGGTGCAATCAT  
AGTACTCCTGCTTTACCTAAAAAGGCTCAAGATTATATATTCCCTCCAATTCCCTGATCCTGGCAAGATTTTAA  
AGAAATGTTTGGAGACCAGAATGATGATACTCTGCACTGGAAGAAGTACGACATCTATGAGAAGCAAACCAAGGA  
GGAAACCGACTCTGTAGTGCTGATAGAAAACCTGAAGAAAGCCTCTCAGTGATGGAGATAATTTATTTTACCTT  
CACTGTGACCTTGAGAAGATTCTTCCCATCTCCATTTGTTATCTGGGAACCTATTAAATGGAACTGAAACTAC  
TGCACCATTTAAAAACAGGCAGCTCATAAGAGCCACAGGTCTTTATGTTGAGTCGCGCACCGAAAAACTAAAAAT  
AATGGGCGCTTTGGAGAAGAGTGTGGAGTCATTCTCATTGAATTATAAAAGCCAGCAGGCTTCAAAC TAGGGGAC  
AAAGCAAAAAGTGATGATAGTGGTGGAGTTAATCTTATCAAGAGTTGTGACAACCTTCTGAGGGATCTATACTTG  
CTTTGTGTTCTTTGTGTCAACATGAACAAATTTTATTTGTAGGGGAACCTCATTGAGGGTGCAAATGCTAATGTCA  
AAGTGTGAGTCACAAAGAACATGTAGAAAACAAATGGATAAAATCTGATATGTATTGTTTGGGATCCTATTGAAC  
CATGTTTGTGGCTATTAAAACTCTTTTAACAGTCTGGGCTGGGTCCGGTGGCTCACGCCTGTAATCCAGCAATT  
TGGGAGTCCGAGGCGGGCGGATCACTCGAGGTCAGGAGTTCCAGACCAGCCTGACCAAAATGGTGAAACCTCCTC  
TCTACTAAAAC TACAAAATTAAGTGGGTGTGGTGGCGCGTGCCTGTAATCCCAGCTACTCGGGAAGCTGAGGCA  
GGTGAATTGTTTGAACCTGGGAGGTGGAGGTTGCACTGAGCAGAGATCACACCACTGCACTCTAGCCTGGGTGAC  
AGAGCAAGACTCTGTCTAAAAACAAAACAAAACAAAACAAAACAAAACCTTTAATATTCTGGAGTCATCA  
TTCCCTTCGACAGCATTTTCTCTGCTTTGAAAGCCCCAGAAATCAGTGTGGCCATGATGACAACCTACAGAAAA  
ACCAGAGGCAGCTTCTTTGCCAAGACCTTTCAAAGCCATTTTAGGCTGTTAGGGGCAGTGGAGGTAGAATGACTC  
CTTGGGTATTAGAGTTTCAACCATGAAGTCTCTAAACATGTATTTTCTTCACCTCTGCTACTCAAGTAGCATTTA  
CTGTGCTTTTGGTTTGTGCTAGGCCCGGGGTGTGAAGCACAGACCCCTTCCAGGGGTTTACAGTCTATTGAGA  
CTCCTCAGTTCTTGCCACTTTTTTTTTTAATCTCCACCAGTCATTTTTCAGACCTTTTAACTCCTCAATTCCAAC  
ACTGATTTCCCTTTTGCATTCTCCCTCCTTCCCTTCTTGTAGCCTTTTGACTTTTATTGGAAATTAGGATGTA  
AATCTGCTCAGGAGACCTGGAGGAGCAGAGGATAATTAGCATCTCAGGTTAAGTGTGAGTAATCTGAGAAACAAT  
GACTAATTCTTGCATATTTTGTAACTTCCATGTGAGGGTTTTTCAGCATTGATATTTGTGCATTTTCTAAACAGAG  
ATGAGGTGGTATCTTCACGTAGAACATTGGTATTCGCTTGAGAAAAAAGAAATAGTTGAACCTATTTCTCTTTCT  
TTACAAGATGGGTCCAGGATTCTCTTTTCTCTGCCATAAATGATTAATTAATAGCTTTTGTGTCTTACATTGG  
TAGCCAGCCAGCCAAGGCTCTGTTTATGCTTTTGGGGGCGCATATATTGGGTCCATTCTCACCTATCCACACAAC  
ATATCCGTATATATCCCTCTACTCTTACTTCCCCCAAATTTAAAGAAGTATGGGAAATGAGAGGCATTTCCCCC  
ACCCCATTTCTCTCTCTCACACACAGACTCATATTACTGGTAGGAACCTTGAGAACTTTATTTCCAAGTTGTTCAA  
CATTTACCAATCATATTAATACAATGATGCTATTTGCAATTCCTGCTCCTAGGGGAGGGGAGATAAGAAACCTC  
ACTCTCTACAGGTTTGGGTACAAGTGGCAACCTGCTTCCATGGCCGTGTAGAAGCATGGTGGCCCTGGCTTCTCTG  
AGGAAGCTGGGGTTCATGACAATGGCAGATGTAAAGTTATTTGAAGTCAGATTGAGGCTGGGAGACAGCCGTA  
GTAGATGTTCTACTTTGTTCTGCTGTTCTCTAGAAAGAATATTTGGTTTCTCTGTATAGGAATGAGATTAATTCC  
TTTCCAGGTATTTTATAATTCTGGGAAGCAAACCCATGCCTCCCCCTAGCCATTTTACTGTTATCCTATTTAG  
ATGGCCATGAAGAGGATGCTGTGAAATCCCAACAACATTGATGCTGACAGTCATGCAGTCTGGGAGTGGGAA

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**FIGURE 44B**

GTGATCTTTTGTTCCTCCTCTTTTAGCAGTAAATAGCTGAGGGAAAAGGGAGGGAAAAGGAAGTTATGG  
GAATACCTGTGGTGGTTGTGATCCCTAGGTCTTGGGAGCTCTTGGAGGTGTCTGTATCAGTGGATTTCCCATCCC  
CTGTGGGAAATTAGTAGGCTCATTACTGTTTTAGGTCTAGCCTATGTGGATTTTTTCCTAACATACCTAAGCAA  
ACCCAGTGTGAGGATGGTAATTCATTCTTTTCGTTTCAGTTAAGTTTTCCCTTCATCTGGGCACTGAAGGGATA  
TGTGAAACAATGTTAACATTTTGGTAGTCTTCAACCAGGGATTGTTTCTGTTTAACTTCTTATAGGAAAGCTTG  
AGTAAAATAAATATTGTCTTTTGTATGTCAAGCGGGCCGCCACCGCGGTGGAAACTCCAGCTT

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**FIGURE 45**

MEWPARLCGLWALLLCAGGGGGGGAAPTETQPPVTNLSVSVENLCTVIWTWNPPEGASSNCSLWYFSHFQDKQD  
KKIAPETRRSIEVPLNERICLVGSQCSTNESEKPSILVEKCISPPEGDPESAVTELQCIWHNLSYMKCSWLPGR  
NTSPDTNYTLYYWHRSLKIHQCENIFREGQYFGCSFDLTKVKDSSFEQHSVQIMVKDNAGKIKPSFNIVPLTSR  
VKPDPPHIKNLSFHNDDLYVQWENPQNFISRCLFYEEVNNSQTETHNVFYVQEAKCENPEFERNVENTSCFMVP  
GVL PDTLNTVRIRVKTNKL CYEDDKLWSNWSQEMSIGKKRNSTLYITMLLIVPVIVAGAIIVLLLYLKRLLKIIIF  
PPIPDPGKIFKEMFGDQNDLTLHWKKYDIYEKQTKETDSVVLIENTLKKASQ

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**FIGURE 46A**

ATTCAGCCGGTGC GCGCGGGCGGGAGGCAGTGGCTGGGGAGTCCCGTCGACGCTCTGTTCCGAGAGCGTGCCC  
CGGACCGCCAGCTCAGAACAGGGGCAGCCGTGTAGCCGAACGGAAGCTGGGAGCAGCCGGGACTGGTGGCCCGCG  
CCCGAGCTCCGCGAGGCGGGAAGCACCTGGATTGTGGGAAGTCCCGGGAGCAGCGCGGCGGCACCTCCCTCACCCA  
AGGGGCCGCGGCGACGGTCACGGGGCGCGGCCACCGTGAGCGACCCAGGCCAGGATTCTAAATAGACGGCCCA  
GGCTCCTCCTCCGCCCGGGCGCCTCACCTGCGGGCATTGCCGCGCCGCTCCGCCGGTGTAGACGGCACCTGCG  
CCGCTTGCTCGCGGGTCTCCGCCCCCTCGCCACCCTCACTGCGCCAGGCCAGGCAGCTCACCTGTACTGGCGC  
GGGCTGCGGAAGCCTGCGTGAGCCGAGGCGTTGAGGCGCGGCGCCACGCCACTGTCCCGAGAGGACGCAGGTGG  
AGCGGGCGCGGCTTCGCGGAACCCGGCGCGGCGCGCAGTGGTCCCAGCCTACACCGGGTTCGGGGGACCCGG  
CCGCCAGTGCCCGGGAGTAGCCGCGCGCTCGGCTGGGCACCATGAACAGCAGCAGCGCCAACATCACCTACGC  
CAGTCGCAAGCGGCGGAAGCCGGTGCAGAAAACAGTAAAGCCAATCCCAGCTGAAGGAATCAAGTCAAATCCTTC  
CAAGCGGCATAGAGACCGACTTAATACAGAGTTGGACCGTTTGGCTAGCCTGCTGCCTTTCCACAAAGATGTTAT  
TAATAAGTTGGACAACTTTTCAGTTCTTAGGCTCAGCGTCAGTTACCTGAGAGCCAAGAGCTTCTTTGATGTTGC  
ATTAAATCCTCCCTACTGAAAGAAACGGAGGCCAGGATAACTGTAGAGCAGCAAATTTTCAGAGAAGGCCTGAA  
CTTACAAGAAGGAGAATTCTTATTACAGGCTCTGAATGGCTTTGTATTAGTTGTCACTACAGATGCTTTGGTCTT  
TTATGCTTCTTCTACTATACAAGATTATCTAGGGTTTCAGCAGTCTGATGTACATACATCAGAGTGATATGAAC  
TATCCATACCGAAGACCGAGCTGAATTTTCAGCGTCAGCTACACTGGGCATTAAATCCTTCTCAGTGTACAGAGTC  
TGGACAAGGAATTGAAGAAGCCACTGGTCTCCCCAGACAGTAGTCTGTTATAACCCAGACCAGATTCCCTCCAGA  
AAACTCTCCTTTAATGGAGAGGTGCTTCATATGTCGTCTAAGGTGTCTGCTGGATAATTCTATCTGGTTTTCTGGC  
AATGAATTTCCAAGGGAAGTTAAAGTATCTTCATGGACAGAAAAAGAAAGGGAAGATGGATCAATACTTCCACC  
TCAGTTGGCTTTGTTTGCATAGCTACTCCACTTCAGCCACCATCCATACTTGAAATCCGGACCAAAATTTTAT  
CTTTAGAACCAAAACAACTAGACTTCACACCTATTGGTTGTGATGCCAAAGGAAGAATTGTTTTAGGATATAC  
TGAAGCAGAGCTGTGCACGAGAGGCTCAGGTTATCAGTTTATTCATGCAGCTGATATGCTTTATTGTGCCGAGTC  
CCATATCCGAATGATTAAAGACTGGAGAAAGTGGCATGTATAGTTTTCCGGCTTCTTACAAAAACAACCGATGGAC  
TTGGGTCCAGTCTAATGCACGCCTGCTTTATAAAATGGAAGACCAGATTATATCATTGTAACCTCAGAGACCACT  
AACAGATGAGGAAGGAACAGAGCATTTACGAAAACGAAATACGAAGTTGCCTTTTATGTTTACCCTGGAGAAGC  
TGTGTTGTATGAGGCAACCAACCCTTTTCTGCCATAATGGATCCCTTACCCTAAGGACTAAAAATGGCACTAG  
TGGAAAAGACTCTGCTACCACATCCACTCTAAGCAAGGACTCTCTCAATCCTAGTTCCCTCCTGGCTGCCATGAT  
GCAACAAGATGAGTCTATTTATCTCTATCTGCTTCAAGTACTTCAAGTACTGCACCTTTTGAAAACAACCTTTTT  
CAACGAATCTATGAATGAATGCAGAAATTGGCAAGATAATACTGCACCGATGGGAAATGATACTATCCTGAAACA  
TGAGCAAATTGACCAGCCTCAGGATGTGAACCTCATTTGCTGGAGGTCAACCAGGGCTCTTTCAAGATAGTAAAA  
CAGTGACTTGTACAGCATAATGAAAAACCTAGGCATTGATTTTGAAGACATCAGACACATGCAGAATGAAAAATT  
TTTCAGAAATGATTTTTCTGGTGGAGTTGACTTCAGAGACATTGACTTAACGGATGAAATCCTGACGTATGTCCA  
AGATTCTTTAAGTAAGTCTCCCTTCATACCTTCAGATTATCAACAGCAACAGTCCTTGGCTCTGAACCTCAAGCTG  
TATGGTACAGGAACACCTACATCTAGAACAGCAACAGCAACATCACCAAAAGCAAGTAGTAGTGGAGCCACAGCA  
ACAGCTGTGTCAGAAAGATGAAGCACATGCAAGTTAATGGCATGTTTGAAAAATTGGAACCTCTAACCAATTCGTGCC  
TTTCAATTGTCCACAGCAAGACCCACAACAATATAATGTCTTTACAGACTTACATGGGATCAGTCAAGAGTTCCC  
CTACAAATCTGAAATGGATTCTATGCCTTATACACAGAACTTTATTTCTGTAAATCAGCCTGTATTACCACAACA  
TTCCAAATGTACAGAGCTGGACTACCCTATGGGGAGTTTTGAACCATCCCCATACCCACTACTTCTAGTTTGA  
AGATTTTGTCACTTGTTTTACAACCTTCTGAAAACCAAAAGCATGGATTAAATCCACAGTCAGCCATAATAACTCC  
TCAGACATGTTATGCTGGGGCCGTGTCGATGTATCAGTGCCAGCCAGAACCCTCAGCACACCCACGTGGGTGAGAT  
GCAGTACAATCCAGTACTGCCAGGCCAACAGGCATTTTTAAACAAGTTTCAGAATGGAGTTTTAAATGAAACATA  
TCCAGCTGAATTAATAACATAAATAACACTCAGACTACCACACATCTTCAGCCACTTCATCATCCGTGAGAAGC  
CAGACCTTTTCTGATTTGACATCCAGTGGATTCCGTAAATTCCAAGCCCAATTTTGACCCTGGTTTTTGGATTA  
AATTAGTTTGTGAAGGATTATGGAAAAATAAACTGTCAGTGTGGACGTGAGCAAGTTACATGGAGGCATTGA  
TGCATGCTATTACAAATTATTCCAAACCAATTTTAAATTTTGCTTTTAGAAAAGGGAGTTTAAAAATGGTATCA  
AAATTACATATACTACAGTCAAGATAGAAAGGGTGTGCCACGGAGTGGTGAGGTACCGTCTACATTTACATTA  
TTCTGGGCACCACAAAAATACAAAACTTTATCAGGGAACTAAGATTCTTTTAAATTAGAAAATATTCTCTATT  
TGAATTATTTCTGTCACAGTAAAAATAAAATACTTTGAGTTTTGAGCTACTGGATTCTTATTAGTTCCCCAAATA

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**FIGURE 46B**

CAAAGTTAGAGAACTAACTAGTTTTTCCTATCATGTTAACCTCTGCTTTTATCTCAGATGTTAAAATAAATGGT  
TTGGTGCTTTTTATAAAAAGATAATCTCAGTGCTTTCCTCCTTCACTGTTTCATCTAAGTGCCTCACATTTTTTT  
CTACCTATAACACTCTAGGATGTATATTTTATATAAAGTATTCTTTTCTTTTTTAAATTAATATCTTCTGCAC  
ACAAATATTATTTGTGTTTTCTAAATCCAACCAATTTTCATTAAATTCAGGCATATTTTAACTCCACIGCTTACCT  
ACTTTCTTCAGGTAAAAGGGCAAATAATGATCGAAAAAATAATTATTTATTACATAATTTAGTTGTTTCTAGACT  
ATAAATGTTGCTATGTGCCTTATGTTGAAAAAATTTAAAGTAAATGTCTTCCAAATTATTTCTTAATTATTA  
TAAAAATATTAAGACAATAGCACTTAAATTCCTCAACAGTGTTTTTTCAGAAGAAATAAATATACCACTCTTACCT  
TTATTGATATCTCCATGATGATAGTTGAATGTTGCAATGTGAAAAATCTGCTGTTAACTGCAACCTTGTTTATTA  
AATTGCAAGAAGCTTTATTTCTAGCTTTTTTAATTAAGCAAAGCACCCATTTCAATGTGTATAAATTGTCTTTAAA  
AACTGTTTTAGACCTATAATCCTTGATAATATATTGTGTTGACTTTATAAATTCGCTTCTTAGAACAGTGGA  
CTATGTGTTTTTCTCATATTTGAGGAGTGTTAAGATTGCAGATAGCAAGGTTGGTGCAAAGTATTGTAATGAGT  
GAATTGAATGGTGCAATTGTATAGATATAATGAACAAAATTATTTGTAAGATATTTGCAGTTTTTCATTTTAAAA  
GTCCATACCTTATATATGCACCTAATTTGTTGGGGCTTTACATACTTTATCAATGTGTCTTTCTAAGAAATCAAG  
TAATGAATCCAACCTGCTTAAAGTTGGTATTAATAAAAAAGACAACCACATAGTTCGTTTACCTTCAAACCTTAGGT  
TTTTTTAATGATATACTGATCTTCATTACCAATAGGCAAATTAATCACCCCTACCAACTTTACTGTCCTAACATGG  
ACTTTCAAAAAGAAAAAATGACACCATCTTTTATTCTTTTTTTTTTTTTTTTTTTTGGAGAGAGAGTCTTACTCTGC  
CGCCCAAACCTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCTACCTCCTGGGTTCAAGTGATTCTCTTG  
CCTCAGCCTCCCGAGTTGCTGGGATTGCGGGCATGGTGCGGTGAGCCTGTAGTCCTAGCTACTCGGGAGGCTGAG  
GCAGGAGAATAGCCTGAACCTGGGAATCGGAGGTTGCAGGGCCAAGATCGCCCCACTGCACTCCAGCCTGGCAAT  
AGACCGAGCTCCGTCTCCAAAAAATAACAATTTTTATTTCTTTTACTTTTTTTTAGTAAGTTAATGTATATA  
AAAATGGCTTCGGACAAAATATCTCTGAGTTCTGTGTATTTTCAGTCAAACTTTAAACCTGTAGAATCAATTTA  
AGTGTTGAAAAAATTTGTCTGAAACATTTTCATAATTTGTTTCCAGCATGAGGTATCTAAGGATTTAGACCAGAG  
GTCTAGATTAATACTCTATTTTTACATTTAAACCTTTTATTATAAGTCTTACATAAACCAATTTTTGTTACTCTCT  
TCCACATGTTACTGGATAAATTGTTTAGTGAAAAATAGGCTTTTTTAATCATGAATATGATGACAATCAGTTATAC  
AGTTATAAAATTAAGTTTGAAAAGCAATATTGTATATTTTTATCTATATAAAATAACTAAAATGTATCTAAGA  
ATAATAAAATCACGTTAAACC

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**FIGURE 47**

MNSSSANITYASRRKRPVQKTVKPIPAEGIKSNPSKRHRDRLNTELDRLASLLPFPQDVINKLDKLSVLRLSVS  
YLRAKSFFDVALKSSPTERNGGQDNCRAANFREGNLQEGEFLLQALNGFVLVTTDALVFYASSTIQDYLGFFQQ  
SDVIHQSVYELIHTEDRAEFQRQLHWALNPSQCTESGQIEEATGLPQTVVCYNPDQIPPENSPLMERCFCICRLR  
CLLDNSSGFLAMNFQGLKYLHGQKKKGKDGSI LPPQLALFAIATPLQPPSILEIRTKNFI FRTKHKLDFTPIGC  
DAKGRIVLGYTEAELCTRGSYGQFIHAADMLYCAESHIRMIKTGESGMIVFRLLTKNNRWTWVQSNARLLYKNGR  
PDYIIIVTQRPLTDEEGTEHLRKRNTKLPFMFTTGEAVLYEATNPFPAIMDPLPLRTKNGTSGKDSATTSTLSKDS  
LNPSSLLAAMMQQDESIYLYPASSTSSSTAPFENNFFNESMNECRNWQDNTAPMGNDTILKHEQIDQPQDVNSFAG  
GHPGLFQDSKNSDLYSIMKNLGIDFEDIRHMQNEKFFRNDFSGEVDFRDIDLTDEILTYVQDSLSKSPFIPSDYQ  
QQQSLALNSSCMVQEHLHLEQQQHHQKQVVVEPQQQLCQKMKHMQVNGMFENWNSNQFVPFNCQQDPQQYNVF  
TDLHGISQEFYPKSEMDSMPTQNFISCNQPVLPQHSKCTELDYPMGSFEPSPYPTTSSLEDFVTCLQLPENQKH  
GLNPQSAIITPQTCYAGAVSMYQCQPEPQHTHVGMQYNPVLPGQQAFLNKFQNGVLNETYPAELNNINNTQTTT  
HLQPLHHPSEARPPDLTSSGFL

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**FIGURE 48**

GGCCCCCTCGAGCCTCGAACCGGAACCTCCAAATCCGAGACGCTCTGCTTATGAGGACCTCGAAATATGCCGGCCA  
GTGAAAAAATCTTGTGGCTTTGAGGGCTTTTGGTTGGCCAGGGGCAGTAAAAATCTCGGAGAGCTGACACCAAGT  
CCTCCCCCTGCCACGTAGCAGTGGTAAAGTCCGAAGCTCAAATTCGAGAATTGAGCTCTGTTGATTCTTAGAACT  
GGGGTTCTTAGAAGTGGTGATGCAAGAAGTTTCTAGGAAAGGCCGGACACCAGTTTTGAGCAAAATTTTGGACT  
GTGAAGCAAGGCATTGGTGAAGACAAAATGCGCCTCGCCGGCTGACAGCTGTATCCAGTTCACCCGCCATGCCAGT  
GATGTTCTTCTCAACCTTAATCGTCTCCGGAGTCGAGACATCTTGACTGATGTTGTCATTGTTGTGAGCCGTGAG  
CAGTTTAGAGCCCATAAAACGGTCCTCATGGCCTGCAGTGGCCTGTTCTATAGCATCTTTACAGACCAGTTGAAA  
TGCAACCTTAGTGTGATCAATCTAGATCCTGAGATCAACCTTGAGGGATTCTGCATCCTCCTGGACTTCATGTAC  
ACATCTCGGCTCAATTTGCGGGAGGGCAACATCATGGCTGTGATGGCCACGGCTATGTACCTGCAGATGGAGCAT  
GTTGTGGACACTTGCCGGAAGTTTATTAAGGCCAGTGAAGCAGAGATGGTTTCTGCCATCAAGCCTCCTCGTGAA  
GAGTTCCTCAACAGCCGGATGCTGATGCCCCAAGACATCATGGCCTATCGGGGTCTGTAGGTGGTGGAGAACAAC  
CTGCCACTGAGGAGCGCCCTGGGTGTGAGAGCAGAGCCTTTGCCCCCAGCCTGTACAGTGGCCTGTCCACACCG  
CCAGCCTCTTATTCCATGTACAGCCACCTCCCTGTGAGCAGCCTCCTCTTCTCCGATGAGGAGTTTCGGGATGTC  
CGGATGCCTGTGGCCAACCCCTTCCCCAAGGAGCGGGCACTCCCATGTGATAGTGCCAGGCCAGTCCCTGGTGAG  
TACAGCCGGCCGACTTTGGAGGTGTCCCCCAATGTGTGCCACAGCAATATCTATTACCCAAGGAAACAATCCCA  
GAAGAGGCACGAAGTGATATGCACTACAGTGTGGCTGAGGGCCTCAAACCTGCTGCCCCCTCAGCCCCGAAATGCC  
CCCTACTTCCCTTGTGACAAGGCCAGCAAAGAAGAAGAGAGACCCTCCTCGGAAGATGAGATTGCCCTGCATTTC  
GAGCCCCCAATGCACCCCTGAACCGGAAGGGTCTGGTTAGTCCACAGAGCCCCCAGAAATCTGACTGCCAGCCC  
AACTCGCCCCACAGAGTCTGCAGCAGTAAGAATGCCTGCATCCTCCAGGCTTCTGGCTCCCCTCCAGCCAAGAGC  
CCCACTGACCCCAAAGCCTGCAACTGGAAGAAATACAAGTTTCATCGTGCTCAACAGCCTCAACCAGAATGCCAAA  
CCAGAGGGGGCCTGAGCAGGCTGAGCTGGGCCGCTTCCCCACGAGCCTACACGGCCCCACCTGCCTGCCAGCCA  
CCCATGGAGCCTGAGAACCTTGACCTCCAGTCCCCAACCAAGCTGAGTGCCAGCGGGGAGGACTCCACCATCCCA  
CAAGCCAGCCGGCTCAATAACATCGTTAACAGGTCCATGACGGGCTCTCCCCGCAGCAGCAGCGAGAGCCACTCA  
CCACTCTACATGCACCCCCCGAAGTGACGTCCTGCGGCTCTCAGTCCCCACAGCATGCAGAGATGTGCCTCCAC  
ACCGCTGGCCCCACGTTCCCTGAGGAGATGGGAGAGACCCAGTCTGAGTACTCAGATTCTAGCTGTGAGAACGGG  
GCCTTCTCTGCAATGAGTGTGACTGCCGCTTCTCTGAGGAGGCCTCACTCAAGAGGCACACGCTGCAGACCCAC  
AGTGACAAACCCTACAAGTGTGACCGTGCCAGGCCTCCTTCCGCTACAAGGGCAACCTCGCCAGCCACAAGACC  
GTCCATACCGGTGAGAAACCCTATCGTTGCAACATCTGTGGGGCCAGTTCAACCGGCCAGCCAACCTGAAAACC  
CACACTCGAATTCACTCTGGAGAGAAGCCCTACAAATGCGAAACCTGCGGAGCCAGATTGTGACAGGTGGCCAC  
CTCCGTGCCCATGTGCTTATCCACACTGGTGAGAAGCCCTATCCCTGTGAAATCTGTGGCACCCGTTTCCGGCAC  
CTTCAGACTCTGAAGAGCCACCTGCGAATCCACACAGGAGAGAAACCTTACCATTGTGAGAAGTGAACCTGCAT  
TTCCGTACAAAAAGCCAGCTGCGACTTCACTTGCGCCAGAAGCATGGCGCCATCACCAACACCAAGGTGCAATAC  
CGCGTGTGAGCCACTGACCTGCCTCCGGAGCTCCCCAAAGCCTGTGAGCATGGAGTGTGATGCTTTCGTCTC  
CAGCCCCCTTCTCAGAATCTACCCAAAGGATACTGTAACACTTTACAATGTTTCATCCCATGATGTAGTGCCTCTTT  
CATCCACTAGTGCAAAATCATAGCTGGGGGTTGGGGGTGGTGGGGGTCGGGGCCTGGGGGACTGGGAGCCGCAGCA  
GCTCCCCCTCCCCCACTGCCATAAAACATTAAGAAAATCATATTGCTTCTTCTCCTATGTGTAAGGTGAACCATG  
TCAGCAAAAAGCAAAATCATTTTATATGTCAAAGCAGGGGAGTATGCAAAAGTTCTGACTTGACTTTAGTCTGCA  
AAATGAGGAATGTATATGTTTTGTGGGAACAGATGTTTCTTTTGTATGTAAATGTGCATTCTTTTAAAGACAAG  
ACTTCAGTATGTTGTCAAAGAGAGGGCTTTAATTTTAAACCAAGGTGAAGGAATATATGGCAGAGTTGTAAA  
TATATAAATATATATATATATAAAATAAATATATAAACCCTAACAAAGATATATTAATAAATAAACTGCGTT  
AAAGGCTCGATTTTGTATCTGCAGGCAGACACGGATCTGAGAATCTTTATTGAGAAAGAGCACTTAAGAGAATAT  
TTTAAGTATTGCATCTGTATAAGTAAGAAAATATTGTGCTAAAATGCCTCAGTGTATTGTATTTTTTTGCAAG  
TGAAGGTTTACAATTTACAAAGTGTGTATTAATAAATAAAGAAAGCAAAAAAATCTGCAGAAGGAAAAATGTG  
TAATTTTGTCTAGTTTTAGTTTTGTATATACCGTACAACGTGTCCTCACGGTGCCTTTTTTACGGGAAGTTTT  
CAATGATGGGCGAGCGTGCACCATCCCTTTTTGAAGTGTAGGCAGACACAGGGACTTGAAGTTGTTACTAATAA  
ACTCTCTTTGGGAATGTTTGTCTCATCCATTCTGCGTCATGCTTGTGTTATAACTACTCCGGAGACAGGGTTTG  
GCTGTGTCTAAACTGCATTACCGCGTTGTAAAATATAGCTGTACAAATATAAGAATAAAATGTTGAAAAGTCAAA  
CTGGAAAAAAA



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**FIGURE 49**

MASPADSCIQFTRHASDVLLNLRNLRSDILTDVVIVVSREQFRAHKTVLMACSGLFYSIFTDQLKCNLSVINLD  
PEINPEGFCILLDFMYTSRLNLRGNIMAVMATAMYLQMEHVVDTCRKFIKASEAEMVSAIKPPREEFLNSRMLM  
PQDIMAYRGREVVENNPLRSAPGCEsRAFAPSLYSGLSTPPASYSMYSHLPVSSLLFSDEEFRDVRMPVANFFP  
KERALPCDSARPVPGEYSRPTLEVSPNVCHSNIYSPKETIPEEARSMDHYSVAEGLKPAAPSARNAPYFPCDKAS  
KEEERPSSSEDEIALHFEPNAPLNRKGLVSPQSPQKSDCQPNPTEACSSKNACILQASGSPPAKSPTDPKACNW  
KKYKFIVLNSLNQNAKPGGPEQAELGRLSPRAYTAPPACQPPMEPENLDLQSPTKLSASGEDSTIPQASRLNNIV  
NRSMTGSPRSSSESHSPLYMHPPKCTSCGSQSPQHAEMCLHTAGPTFAEEMGETQSEYSDSSCENGAFFCNECDC  
RFSEEASLKRHTLQTHSDKPYKCDRCQASFRYKGNLASHKTVHTGEKPYRCNICGAQFNRPANLKTHTRIHSGEK  
PYKCETCGARFVQVAHLRAHVLIHTGEKPYPCIEICGTRFRHLQTLKSHLRIHTGEKPYHCEKCNLHFRHKSQRLRL  
HLRQKHGAITNTKVQYRVSATDLPPELPKAC

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**FIGURE 50A**

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTTAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC  
GCCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTCTGCCCTCACCTCTCCCCGAAAACCCCT  
ATTTAGCCAAAGGAAGGAGGTGAGGGGAACGCTCTCCCCTCCCCTTCCAAAAAACAAAAACAGAAAAACCTTTT  
CCAGGCCGGGAAAGCAGGAGGGAGAGGGGCCCGGGCTGGCCATGAGCTGCTGTGCCACGAGGTGGACCCGG  
TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCTGCAGAACCTGCTCACCATCGAGGAGC  
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCGTGCGAAGGACATCCAACCCTACATGCGCAGAATGGTGGCCA  
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC  
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCCTGCAACTCCTGGGTGCTGTCTGCATGTTCTTGGCCTCCA  
AACTCAAAGAGACCAGCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCATCAAGCCTCAGGAGC  
TGCTGGAGTGGAAGTGGTGGTGTGAGGGAAGTTGAAGTGGAACCTGGCAGCTGTCACTCCTCATGACTTCATTG  
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG  
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTTGGGAGCAGCCA  
TCTGTGGGTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA  
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT  
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG  
ATATCGACCTGTGAGGATGCCAGTTGGGCCGAAAGAGAGAGACCGGTCCATAATCTGGTCTCTTCTTCTTTCTGG  
TTGTTTTGTCTTTGTGTTTTAGGGTGAACTTAAAAAAAAAATCTGCCCCACCTAGATCATATTTAAAGAT  
CTTTTAGAAGTGAGAGAAAAAGGTCTACGAAAACGGAATAATAAAAAAGCATTGTTGCCTATTTGAAGTACAGC  
ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTTGATTATGTAAAAAGTAATAGTAAATGCTTACAGGAAA  
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTTCATGTT  
ATGAGCTAGCACATACACCCCTTGTAGTATAATTTCAAGGAACGTGTACGCCATTTATGGCATGATTAGATTG  
CAAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGAAGGAGTACAAAACAATCTCTCAAC  
ATGATTGAACCATTGTTGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT  
CTCTACATTAATGTCTCTTGCTGTCTACAGTAGCTGCTACCTAAAAAAGATGTTTTATTTTGCCAGTTGGACA  
CAGGTGATTGGCTCCTGGGTTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC  
ACCATATTGCTATCTAATGGGGAATGTAGCTATGGGCCATAACCAAACTCACATGAAACGGAGGCAGATGGAG  
ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAAGGGTAATGTGGCCTTGGCATTCTTC  
TTAGAAAAAACTAATTTTTGGTGCTGATTGGCATGTCTGGTTCACAGTTTAGCATTGTTATAAACCATTCATT  
CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC  
CTCTTCTCTTTTGCCCCCTCCCTTCTGCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTCTTTGG  
TACACAGTCTGTTGTTTCTTACCAGGACTCAAGAGACACCCCTTCTGCTGACATTCCCATCACAACATTCTCA  
GACAAGCCTGTAACTAAAATCTGTTACCATTCTGATGGCACAGAAGGATCTTAATCCCATCTCTATACTTCTC  
CTTTGGACATGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTGTTTCC  
CTTTCCGTTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTCAGCGTACTTGAATTTTTC  
TTCTCTCCACTTCTTAGAGGCATTAGTTAGCAAAGAGGTTGGAGCAACAACCTTTTTTTTTTTTTTTTGCACAA  
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAAAATTTTGCCTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG  
CTATTTGAAGAATTATTTTATACACAGATTCTGCC TTGTTTCATAGTATGAGGGTTGAAGACGGAAAAACAATCTA  
AGGGTCTCTCATTTTTTTAATTTTGTGTTTGTTCAGTTTGGTTTTTTTTTTTTTTTTTTTGGCTGCTAAGAAGCTAAAG  
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTTTATAAACATTT  
TTATAATATATTATTTTACTGCTTAAATTCCAAGTCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA  
AAAGCCCTTCCGTAGTTTGTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTTTTTCTTTTTTGGTTTTTTGG  
TTTTTTTTTTTTTCTCTGATCACATTCTTCAAAGACGGAGTATCTTTACCTCAGGTTTACTGGACAAAATCAAT  
AACTACAAAAGGCAATGATTCACGCTTTTGTGTTTATAATACCTCACAACCGTACAGTTTCTGCTTGGGAGCCCA  
TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC  
CAGGGACCTTTTTTGGTCATGGAGGCCATCGGGCTCCAGTTAGACCCTGGTATCCTCATCATGATGGAATAAATA  
CATTGAACCAAGGGATCCTCCCTCCCTTCAAAGGCAGAGCTTCAGTACAAACATTTATGCGGTAGGCTCAGATGT  
CGTAATTTGCACCTTAGGTACCAGGTGTGAGGAAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA  
TCTTGGAGCTTTTTTCAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTTGAAGTTTTTCCCCTCCGTCTTT

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**FIGURE 50B**

CCCCCCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGAT  
GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGC  
AAGCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT  
AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCAGATG  
AGTCAGTCTCTTGGGAAGTGTGTTTGAAGGTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC  
TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC  
AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTG  
GGAACCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAAATTCATTTGAGTACTGACC  
CTTGAGCTTAAACAGAAGCAGCAAAATGAAAGAACCAGCAAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT  
ACAGTCTGTAACTTTCCACTCTTCTGTAGTCCCGAGGCCCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTT  
GGGCCTTGTGTGATGATGGGTGTGGGCTGCCGATGGGAAAGTCGGGGGTGTTAGGCTTTTCTGCCTGCTCCT  
GCTTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTGTTC  
GAGGAGCTCTCCCCCTTGATTTGAACCTGCTCTTTTGTGTGTGTGTCTTTCTCTCTTTTCTTACCTCCC  
ACTAAAGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTGTTTCTATCTCGTCTTTACTTCCATCTGTT  
TGTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCTCTTTTGGCC  
AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAACTCCATGCGGGTCCATAA  
CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGAGAACACCCCATGCGTGCTGAGAGGCGAGC  
TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTATTTTGAAGTGCCTCAGGACCCCACTGGAGAGCACAGCAT  
GCCTTACTACTGGGTATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA  
GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCTGACAGCATCACGCTGCATCCCATTGCTA  
GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC  
CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT  
TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGACCTTATGTATGTAAATAATTGA  
TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG  
TTGGCTTCTAAGCCAAAAGGATTCCCTCTTGTGTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAGGG  
AAATTAATGCTGAGATGATAAAGTCCCTTAAAGCCAACAAACCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA  
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT  
CAAGAGGATATTTATTACTTCTCATACCACATGGCTTTTGTATGATTCTGGATTCTAAACAACCCAGAATGGTCA  
TTTCAGGCACAACGATACTACATTTCGTGTGTGTCTGCTTTTAAACTTGGCTGGGCTATCAGACCCTATTCTCGGC  
TCAGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCCTGCAGCC  
TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCT  
TGAAAAACAAAGTTTCTATTTTTATTTTTAATTGGTTTGTGTTTCTTAACTGCTGGCCAACTCTTACATCCCCAGCA  
AATCATCGGGCCATTGGATTTTTTCCATTATGTTTCATCACCTTATATCATGTACCTCAGATCTCTCTCTCTC  
CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTCTTTTTTTTTTGCTTTAAAA  
CAAGTGTGATGCCATATCAAGTCCATGTTATTTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTGGT  
CAGGATGTTAGAAAGTGTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAATG  
TTGATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAAGAGGTCTTATCTGTTTCAAGTGTAAAGTAT  
TTAAAAAATAATAACCTGTTTTCTGACTAGTTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTAT  
GCTATTTGGACAATAAACTCACCTTGACCT

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**FIGURE 51**

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE  
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN  
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAICGLQQDEEVSSLTC  
DALTELLAKITNTDVEDCLKACQEQIEAVLLNSLQQYRQDQRDGSKEDELDQASTPTDVRDIDL

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**FIGURE 52**

GCCGCGCCGGCTCTGGGCACTCAGCATCGTTTTCCTTTTCCTCCGCTGGAGCAGCTATGGCGGCGGTGAAGACCCT  
GAACCCCAAGGCCGAGGTGGCCGAGCGCAGGCGGCGCTGGCGGTCAACATCAGCGCAGCGGGGTCTGCAGGA  
CGTGCTAAGGACCAACCTGGGGCCCAAGGGACCATGAAGATGCTCGTTTCTGGCGCTGGAGACATCAAACCTTAC  
TAAAGACGGCAATGTGCTGCTTCACGAAATGCAAAATCAACACCCAACAGCTTCCTTAATAGCAAAGGTAGCAAC  
AGCCCAGGATGATATAACTGGTGATGGTACGACTTCTAATGTCCTAATCATTGGAGAGCTGCTGAAACAGGCGGA  
TCTCTACATTTCTGAAGGCCCTTCATCCTAGAATAATCACTGAAGGATTTGAAGCTGCAAAGGAAAAGGCCCTTCA  
GTTTTTGAAGAAGTCAAAGTAAGCAGAGAGATGGACAGGGAAACACTTATAGATGTGGCCAGAACATCTCTTCG  
TACTAAAGTTCATGCTGAACCTTGACAGATGCTTAAACAGAGGCTGTAGTGGACTCCATTTTGGCCATTAAAAAGCA  
AGATGAACCTATTGATCTCTTCATGATTGAGATCATGGAGATGAAACATAAATCTGAAACTGATACAAGCTTAAT  
CAGAGGGCTTGTTTTGGACCACGGAGCACGGCATCCTGATATGAAGAAAAGGTGGAGGATGCATACATCCTCAC  
TTGTAACGTGTCATTAGAGTATGAGAAAACAGAAGTGAATTCTGGCTTTTTTACAAGAGTGCAGAAGAGAGAGA  
AAAACCTCGTGAAAGCTGAAAGAAAATTCATTGAAGATAGGGTTAAAAAAATAATAGAAGTGAAGGAAAGTCTG  
TGGCGATTCAAGATAAAGGATTTGTTGTTATTAATCAAAAGGGAATTGACCCCTTTTCCTTAGATGCTCTTTCAAA  
AGAAGGCATAGTCGCTCTGCGCAGAGCTAAAAGGAGAAATATGGAGAGGCTGACTCTTGCTTGTGGTGGGGTAGC  
CCTGAATTCTTTTGACGACCTAAGTCCTGACTGCTTGGGACATGCAGGACTTGTATATGAGTATACATTGGGAGA  
AGAGAAGTTTACCTTTATTGAGAAATGTAACAACCTCGTTCTGTCACATTATTGATCAAAGGACCAATAAGCA  
CACACTCACTCAGATCAAAGATGCAGTGAGGGACGGCTTGAGGGCTGTCAAAAATGCTATTGATGATGGCTGTGT  
GGTTCCAGGTGCTGGTGCCGTGGAAGTGGCAATGGCAGAAGCCCTGATTAAACATAAGCCCAGTGTAAGGGCAG  
GGCACAGCTTGGAGTCCAAGCATTGCTGATGCATTGCTCATTATTCCCAAGGTTCTTGCTCAGAAGCTCTGGTTT  
TGACCTTCAGGAAACATTAGTTAAATTCAGCAGAACATTGAGAAATCAGGTCAGCTTGTGGGTGTGGACCTGAA  
CACAGGTGAGCCAATGGTGGCAGCAGAAGTAGGCGTATGGGATAACTATTGTGTAAAGAAACAGCTTCTTCACTC  
CTGCACTGTGATTGCCACCAACATTCTCTTGGTTGATGAGATCATGCGAGCTGGAATGTCTTCTCTGAAAGGTTG  
AATTGAAGCTTCCTCTGTATCTGAATCTTGAAGACTGCAAAGTGATCCTGAGGATTACAGCTGTGGAATTTTGT  
CCAAGCTTCAAATAATTTTGAAGAAATTTTCCCATATGAAAAAAGGAGAGAACTGGCATCTGTTGAAATTTG  
GAAGTTCTGAAATTATAGTATTTTAAAAATTGCACTGAAGTGTATACACATAAAGCAGGTCTTTTATCCAGTGA  
ACAGGATGTTTTGCTTTAGCAGCAGTGACATAAAATTCATGTTAGATAAGCATATGTTACTTACCTTGTTATTA  
AATATTTCTTGAAAAGCAAATTTTAAATGGTTAATTTTATGTGGACGTATGTTAAATTATCCAACTACCTATTG  
TTAAGCATTTGGTTTTTAAATTTTTATGCTAATATAAATGCTCAAGTAATTTAAATATTGAAAGCATCCCTGTT  
GGTATAAATTTCTGAGTAAATGCATTGGATCAGTTGGACTTTGAACGCCCTTTGAAATGGCTTTGCTAAAATGCT  
CCCGCCACAAAGTTGTAGGAAATGGGAAGAGGAGTCAACTAGAGGCAAGGGAGTTGAGAGAGCTGCAACTGTAAA  
GGGCAAGAACAGGCAGAGGTAAAAAGATGATGGAAGGTGTGGTGACTAAGGGCCACGGTTATTGGGTGAAATTTG  
AGATGTAGGCCAACTGTATTTTCAAGCTTCTGAACTTAAGGCAAAATATTCATCGCAAAGTCTCTAGCGTCATAT  
TTTTCTCACCCAAATTACGTTTCCACGAGTTATTAATATAGTTGGTCTATCTCTGCAGTCCTGAAGGTGAAGT  
TGTGTGTTACTAGGCTGTGTTTTGGGATGTCAGCAGTGGCCTGAAGTGAGTTGTGCAATAAATGTTAAGTTGAAA  
CCTCAAAAAAAA

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**FIGURE 53**

MAAVKTLNPKAEVARAQAALAVNISAARGLQDVLRTNLGPKGTMKMLVSGAGDIKLTGDGNVLLHEMQIQHPTAS  
LIAKVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEEAKEKALQFLEEVKVSREMDRETLID  
VARTSLRTKVHAELADVLTEAVVDSILAIAKKQDEPIDLFMIEIMEMKHKSETDTSIRGLVLDHGARHPDMKKRV  
EDAYILTCNVSLEYEKTEVNSGFFYKSAEEREKLVKAERKFIEDRVKKIIELKRKVCSDSDKGFVVINQKGIDPF  
SLDALSKEGIVALRRAKRRNMERLTLACGGVALNSFDDLSPDCLGHAGLVYEYTLGEEKFTFIEKCNNPRSVTLL  
IKGPNKHTLTQIKDAVRDGLRAVKNAIDDGCVVPGAGAVEVAMAEALIKHKPSVKGRAQLGVQAFADALLIIPKV  
LAQNSGFDLQETLVKIQAEHSESGQLVGVDLNTGEPMVAAEVGVWDNYCVKKQLLHSCCTVIATNILLVDEIMRAG  
MSSLKG

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**FIGURE 54**

GACCAGCCTACAGCCGCTGCATCTGTATCCAGCGCCAGGTCCTCGCCAGTCCCAGCTGCGCGCGCCCCCAGTCC  
CGCACCCGTTTCGGCCCAGGCTAAGTTAGCCCTCACCATGCCGGTCAAAGGAGGCACCAAGTGCATCAAATACCTG  
CTGTTTCGGATTAACTTCATCTTCTGGCTTGCCGGGATTGCTGTCCTTGCCATTGGACTATGGCTCCGATTTCGAC  
TCTCAGACCAAGAGCATCTTCGAGCAAGAACTAAATAATAATTCCAGCTTCTACACAGGAGTCTATATTCTG  
ATCGGAGCCGGCGCCCTCATGATGCTGGTGGGCTTCCTGGGCTGCTGCGGGGCTGTGCAGGAGTCCCAGTGCATG  
CTGGGACTGTTCTTCGGCTTCCTCTTGGTGATATTGCGCCATTGAAATAGCTGCGGCCATCTGGGGATATTCCAC  
AAGGATGAGGTGATTAAAGGAAGTCCAGGAGTTTTACAAGGACACCTACAACAAGCTGAAAACCAAGGATGAGCCC  
CAGCGGGAAACGCTGAAAGCCATCCACTATGCGTTGAACTGCTGTGGTTTGGCTGGGGGCGTGGAACAGTTTATC  
TCAGACATCTGCCCCAAGAAGGACGTACTCGAAACCTTCACCGTGAAGTCCTGTCCTGATGCCATCAAAGAGGTC  
TTCGACAATAAATTCCACATCATCGGCGCAGTGGGCATCGGCATTGCCGTGGTCATGATATTTGGCATGATCTTC  
AGTATGATCTTGTGCTGTGCTATCCGCAGGAACCGCGAGATGGTCTAGAGTCAGCTTACATCCCTGAGCAGGAAA  
GTTTACCCATGAAGATTGGTGGGATTTTTTGTGTTGTTGTTTGTGTTTGTGTTGTTGTTGTTGTTGTTGTTTGT  
CCACTAATTTTAGTATTCATTCTGCATTGCTAGATAAAAGCTGAAGTTACTTTATGTTTGTCTTTAATGCTTCA  
TTCAATATTGACATTTGTAGTTGAGCGGGGGGTTTGGTTTGCTTTGGTTTATATTTTTTCAGTTGTTTGTGTTTGT  
CTTGTTATATTAAGCAGAAATCCTGCAATGAAAGGTACTATATTGCTAGACTCTAGACAAGATATTGTACATAA  
AAGAATTTTTTGTCTTTAAATAGATACAAATGTCATCAACTTTAATCAAGTTGTAACCTATATTGAAGACAAT  
TTGATACATAATAAAAAATTATGACAATGTCAAAAAAAAAAAAAA

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**FIGURE 55**

MPVKGGTKCIKYLLFGFNFIWLAGIAVLAIGLWLRFDSTKSIQETNNNNSSFYTGVIYILIGAGALMMLVGF  
LGCCGAVQESQCMLGLFFGFLVIFAIEIAAAIWGYSHKDEVIKEVQEFYKDTYNKLTKDEPQRETLKAIHYAL  
NCCGLAGGVEQFISDICPKKDVLETFTVKSCPDAIKEVFDNKFHIIGAVGIGIAVVMIFGMIFSMILCCAIRNR  
EMV



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**FIGURE 56**

AGACTCAACAAGAGCTCCAGCAAAGACTTTCACTGTAGCTTGACTTGACCTGAGATTAACTAGGGAATCTTGAGA  
ATAAAGATGAGCTCTGAAAATTGTTTCGTAGCAGAGAACAGCTCTTTGCATCCGGAGAGTGACAAAGAAAATGAT  
GCCACCAGTCCCCATTTCTCAACACGTCATGAAGGGTCCTTCCAAGTTCCTGTCTGTGCTGTAATGAATGTG  
GTCTTCATCACCATTTTAATCATAGCTCTCATTGCCTTATCAGTGGGCCAATACAATTGTCCAGGCCAATACACA  
TTCTCAATGCCATCAGACAGCCATGTTTCTTCATGCTCTGAGGACTGGGTTGGCTACCAGAGGAAATGCTACTTT  
ATTTCTACTGTGAAGAGGAGCTGGACTTCAGCCCAAAATGCTTGTTCTGAACATGGTGCTACTCTTGCTGTCATT  
GATTCTGAAAAGGACATGAACTTTCTAAAACGATACGCAGGTAGAGAGGAACACTGGGTTGGACTGAAAAGGAA  
CCTGGTCACCCATGGAAGTGGTCAAATGGCAAAGAATTTAACAACCTGGTTCAACGTTACAGGGTCTGACAAGTGT  
GTTTTCTGAAAAACACAGAGGTCAGCAGCATGGAATGTGAGAAGAATTTATACTGGATATGTAACAAACCTTAC  
AAATAAATAAGGAAACATGTTCACTTATTGACTATTATAGAATGGAACCTCAAGGAAATCTGTGTCAGTGGATGCTG  
CTCTGTGGTCCGAAGTCTTCCATAGAGACTTTGTGAAAAAAATTTTATAGTGTCTTGGGAATTTTCTTCCAAAC  
AGAACTATGGAAAAAAGGAAGAAATTCAGGAAATCTGCACTGTGGGCTTTTATTGCCATGAGCTAGAAGCAT  
CACAGGTTGACCAATAACCATGCCCAAGAATGAGAAGAATGACTATGCAACCTTTGGATGCACTTTATATTATTT  
TGAATCCAGAAATAATGAAATAACTAGGCGTGGACTTACTATTTATTGCTGAATGACTACCAACAGTGAGAGCCC  
TTCATGCATTTGCACTACTGGAAGGAGTTAGATGTTGGTACTAGATACTGAATGTAAACAAAGGAATTATGGCTG  
GTAACATAGGTTTTTTAGTCTAATTGAATCCCTTAAACTCAGGGAGCATTTATAAATGGACAAATGCTTATGAAAC  
TAAGATTTGTAATATTTCTCTCTTTTTAGAGAAATTTGCCAATTTACTTTGTTATTTTTCCCCAAAAGAATGGG  
ATGATCGTGATTTATTTTTTTTACTTCCTCAGCTGTAGACAGGTCCCTTTTCGATGGTACATATTTCTTTGCCTTT  
ATAATCTTTTATACAGTGTCTTACAGAGAAAAGACATAAGCAAAGACTATGAGGAATATTTGCAAGACATAGAAT  
AGTGTTGGAAAATGTGCAATATGTGATGTGGCAAATCTCTATTAGGAAATATTCTGTAATCTTCAGACCTAGAAT  
AATACTAGTCTTATAATAGGTTTGTGACTTTCCCTAAATCAATTCTATTACGTGCAATACTTCAATACTTCATTTA  
AAATATTTTTATGTGCAATAAAATGTATTTGTTGTATTTGTGTTTCAGTACAATTATAAGCTGTTTTTATATAT  
GTGAAATAAAAGTAGAATAAACACAAAAAATAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 57**

MSSENCFVAENSSLHPESGQENDATSPHFSTRHEGSFQVPVLCVMNVFITILIIALIALSVGQYNCPGQYTFS  
MPSDSHVSSCEDWVG YQRKCYFISTVKRSWTS AQNACSEHGATLAVIDSEKDMNFLKRYAGREEHWVGLKKEPG  
HPWKWSNGKEFNW FNV TGSDKCVFLKNTEVSSMECEKNLYWICNKPYK

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**FIGURE 58**

GACAGCCACGAAGATCCTACCAAAATGAAGCGCTTCCTCTTCCTCCTACTCACCATCAGCCTCCTGGTTATGGTA  
CAGATACAAACTGGACTCTCAGGACAAAACGACACCAGCCAAACCAGCAGCCCCTCAGCATCCAGCAGCATGAGC  
GGAGGCATTTTCCTTTTCGTGGCCAATGCCATAATCCACCTCTTCTGCTTCAGTTGAGGTGACACGTCTCAG  
CCTTAGCCCTGTGCCCCCTGAAACAGCTGCCACCATCACTCGCAAGAGAATCCCCTCCATCTTTGGGAGGGGTTG  
ATGCCAGACATCACCAGGTTGTAGAAGTTGACAGGCAGTGCCATGGGGGCAACAGCCAAAATAGGGGGGTAATGA  
TGTAGGGGCCAAGCAGTGCCAGCTGGGGGAGAATAAAGTTACCCTTGTA CTGCA

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**FIGURE 59**

MKRFLFLLLTISLLVMVQIQTGLSGQNDTSQTSSPSASSSMSGGIFLFFVANAIHLFCFS

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**FIGURE 60**

GCGGTGGTGGACACGTCGAGCCGGGTAGAAAGTGGAGGGGCCGTTTGAAGAGTCGTGAGGGGGTGACGGGTAAAGA  
TTCGGAGAGAGAGGTGCTAGTGGCTGGACTTGACCTGGAAAGAATCTTCTGCTGACTCTCAACTTTTCCTGGAAA  
AAATGGATCATTCCCACCATATGGGGATGAGCTATATGGAC TCCAACAGTACCATGCAACCTTCTCACCATCACC  
CAACCACTTCAGCCTCACACTCCCATGGTGGAGGAGACAGCAGCATGATGATGATGCCTATGACCTTCTACTTTG  
GCTTTAAGAATGTGGAACACTACTGTTTTCCGGTTTGGTGATCAATACAGCTGGAGAAATGGCTGGAGCTTTTGTGG  
CAGTGTTTTTACTAGCAATGTTCTATGAAGGACTCAAGATAGCCGAGAGAGCCTGCTGCGTAAGTCACAAGTCA  
GCATTGCTACAATTCCATGCCTGTCCCAGGACCAAATGGAACCATCCTTATGGAGACACACAAAACCTGTTGGGC  
AACAGATGCTGAGCTTTCCCTCACCTCCTGCAAACAGTGCTGCACATCATCCAGGTGGTCATAAGCTACTTCCCTCA  
TGCTCATCTTCATGACCTACAACGGGTACCTCTGCATTGCAGTAGCAGCAGGGGCCGGTACAGGATACTTCCCTCT  
TCAGCTGGAAGAAGGCAGTGGTAGTGGATATCACAGAGCATTGCCATTGACATCAAACTCTATGGCGTGCGCCTTA  
TCGATTGCAGTGGGAAGTTGTTGAAGACTTGAAGACGTGATTCCCTGCTCCAATCATCCCTTCTTGCTCCTCTTTG  
TGCACGTAC  
TGAATAAAGTAGTAACCTCCCAAATTGTTTTTTCTAATAAGCTGAGATTCCCATTTCTCTTAAGGAGAAGCCAC  
CCATGAGATGTCTTTTCCTTCTCCATCATCTTAGAGCCAAGTTATATGTTCTTGTCTAATCCATGTAGCTTTTTG  
TTCAATGACTTGATCATCTGCTTCCTTTTTGAATTTTAAACAGATAGTAAGTAAATTTGGTGGTTTTTTCCCTG  
GGTCAGTGATGGAAAGGGGTAACTTCAGCCAGGATTGATGGCAGCTGAGGGAAATTTCTTGCCCAACTAAACCCA  
GAACTCAAACCTAACATTAGAAAATAAGGTCCAGGGCCGGACACAGTGGCCCATGCCTGTAATCCCAGCACTTTG  
GGGGGCCAAGGCAGGCTGGATCACCTGAGGACAGGAGTTCGAGACCAGTCTGGCCAACATGGGGAAACCCCGTCT  
CTACTAAAAATACAAAAATTAGCCGGGCATGGTGGTGGGCGCCTGTAATCCCAGCTACTCAGAAGGCTGAGGCAG  
GAGAATCACTTGAACCTAGGAGGCGGAGGTTGCAGTGAGCCAAGATGGCGCCATTGCACTCCAGCCTGGGTGACA  
AGAGTGAAACTCCATCTCAAAAAAAGAAAAGAAGGTCCAGCTTTTGGATTCAATGAGTGGGAAATACATTGTG  
CCTTTCTCTAGATGTGATACGTTATACCAAATCTTTGTAGTGTGCAGAGCGGTGGTTTGGAGCTAAATACAGGC  
TTAGAACTTGCAGAGTGTGTATTCTTGGATGGCTGATGCATCGACTTGCATTCCCACCTTAACACTTTGATTAGCC  
ATGAACCTTGCCAATCAAAAAATGACAATCAATTTGAGAAAATAGAAATAGATATTTTTAAATAAAACCATTACAC  
GTTT

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**FIGURE 61**

MDHSHHMGMSYMDSNSTMQPSHHHTTSASHSHGGGDSSMMMMPMTFYFGFKNVELLFSGLVINTAGEMAGAFVA  
VFLLAMFYEGLKIARESLLRKSQVSI RYNSMPVPGPNGTILMETHKTVGQQLSFPHLLQTVLHI IQVVISYFLM  
LIFMTYNGYLCIAVAAGAGTGYFLFSWKKAVVVDI TEHCH

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**FIGURE 62**

ATGACCATGGAAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCAT  
GTGCAGACTCAGACTGGGCAAATTTCAATCCCTGCTTTAGCTCAGTGAGCTGAGATCAGGCACCAGAAGA  
GGCTCCCCAGCTGTAACCTCTAGTGCAGTTACCTTCGGGCCAAACTATACATGTCCAGGGAGTAATTCAGACACCA  
CAGCCATGGGTTATTAGTGCATCAGAAATACACACCGTTTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCA  
GAATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTCACGAAGACCCTCTTATAGGAAAATACTG  
AATGAACTGTCCTCTGATGTGCCTGGTGTTCCCAAGATTGAAGAAGAGAGATCAGAGGAAGAAGGAACACCACCT  
AGTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACATTGCTATAGCCCAAGGT  
GGAACAATCCAGATTTCTAACCCAGGATCTGATGGTGTTTCAGGGACTGCAGGCATTAACAATGACAAATTCAGGA  
GCTCCTCCACCAGGTGCTACAATTGTACAGTACGCAGCACAATCAGCTGATGGCACACAGCAGTTCTTTGTCCCA  
GGCAGCCAGGTTGTTGTTCAAGCTGCCACTGGTGACATGCCAACTTACCAGATCCGAGCTCCTACTGCTGCTTTG  
CCACAGGGAGTGTTGATGGCTGCATCGCCCGGAAGTTTGACAGTCCCCAGCAGCTGGCAGAAGAAGCAACACGC  
AAACGAGAGCTGAGGCTAATGAAAAACAGAGAAGCTGCCCGGGAGTGTCGCAGGAAGAAGAAAGAATATGTCAAA  
TGTCTTGAAATCGTGTGGCTGTGCTTGAAAACCAAAACAAGACTCTCATTGAGGAACTCAAGGCCCTCAAAGAT  
CTTTATTGCCATAAAGTAGAGTAACTGTCTTTGACTTGACCTTGTTTACTCTAATCAAGGCAGGAGATGCAGCA  
GTCCTACTTATTGCCATGTGGACTTGTGGGAAGGACACGTGTGACCCTTAAGAATCCAGTTTGGATTAGTGTTG  
AAATTGAATTGGGAATGTTGTTCCAGGATGTGGAATGCAGCGTGATCACACTTACCGAGCTTACTTTGATCTGTT  
TGTCAATAGCATGCAAAAAATGCTTTGTTTGCCCTTTGCTTCTGCTTTTTTTCAGGGAAGCTGCCAAAGAATGTC  
GACGTCGAAAGAAAGAATATGTAAATGCCTGGAGAGCCGAGTTGCAGTGCTGGAAGTCCAGAACAAGAAGCTTA  
TAGAGGAACTTGAAACCTTGAAAGACATTTGTTCTCCCAAACTGATTACTAGAAATATTTAACTATGAACTGAT  
TACAGA

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**FIGURE 63**

MTMETVESQHDGSITASLTESKSAHVQTQTGQISIPALAQCSSELRSRGSPAVTLVQLPSGQTIHVQGVQTP  
QPWVIQSSEIHTVQVAAIAETDESAESEGVIDSHKRREILSRRPSYRKILNELSSDVPGVPKIEERSEEEGTPP  
SIATMAVPTSIYQTSTGQYIAIAQGGTIQISNPGSDGVQGLQALMTNSGAPPPGATIVQYAAQSADGTQQFFVP  
GSQVVVQAATGDMPTYQIRAPTAALPQGVVMAASPGSLHSPQQLAEEATRKRRLMKNREAARECRRKKKEYVK  
CLENRVAVLENQNKTLEELKALKDLYCHKVE



**FIGURE 64**

TCCAGTACGCGGAGCCGCCCGGCCGACAGACCCGAGACGACGCGCGCTCCCGGTCCCGACCTCCGACCCAGCCAGCGCTCCAGGCCCGCGCTCCCCGCTCGCCGCCACCGCGCCCTCCGCTCCGCGCCAGTGCACCAACCATGACCGCCGCCAGTATGGGCCCCGCTCCGCGCTCGCCTTCGTGGTCCCTCCTCGCCCTCTGCAGCCGGCGGGCCGCTCGGCCA  
GAACTGCAGCGGGCCGCTGCCGGTGCCCGGACGAGCGCGCGCCGCGCTGCCCGGGCGGGCGTGAGCCTCGTGCTGGA  
CGGCTGCGGGCTGCTGCCGCGCTCTGCGCCAAGCAGCTGGGCGAGCTGTGCACCGAGCGCGACCCCTGCGACCCGCA  
CAAGGGCCCTCTTCTGTGACTTCGGCTCCCCGGCCAACCGCAAGATCGGCGTGTGCACCGCCAAGATGGTGCTCC  
CTGCATCTTCGGTGGTACGGTGTACCGCAGCGGAGAGTCTTCCAGAGCAGCTGCAAGTACCAGTGCACGTGCCT  
GGACGGGGCGGTGGGCTGCATGCCCCGTGTGCAGCATGGACGTTCTGCTGCCAGCCCTGACTGCCCCCTTCCCGAG  
GAGGGTCAAGCTGCCCGGGAATGCTGCGAGGAGTGGGTGTGTGACGAGCCCAAGGACCAAACCGTGGTTGGGCC  
TGCCCTCGCGGCTTACCGACTGGAAGACAGTTTGGGCCAGACCCAACATATGATTAGAGCCAACCTGCCTGGTCCA  
GACCACAGAGTGGAGCGCCTGTTCCAAGACCTGTGGGATGGGCATCTCCACCCGGGTTACCAATGACAACGCCTC  
CTGCAGGCTAGAGAAGCAGAGCCGCCGTGTGCATGGTCAGGCCTTGCGAAGCTGACCTGGAAGAGAACATTAAGAA  
GGGCAAAAAGTGCATCCGTACTCCCAAAATCTCCAAGCCTATCAAGTTTGAGCTTTCTGGCTGCACCAGCATGAA  
GACATACCGAGCTAAATTCTGTGGAGTATGTACCGACGGCCGATGCTGCACCCCCACAGAACCACCACCCTGCC  
GGTGGAGTTCAAGTGCCCTGACGGCGAGGTTCATGAAGAAGAACATGATGTTTCATCAAGACCTGTGCCTGCCATTA  
CAACTGTCCCGGAGACAATGACATCTTTGAATCGCTGTACTACAGGAAGATGTACGGAGACATGGCATGGAAGCCA  
GAGAGTGAGAGACATTAACCTATTAGACTGGAACCTGAACTGATTACATCTCATTTTTCCGTA AAAAATGATTTC  
AGTAGCACAAAGTTATTTAAATCTGTTTTTCTAACTGGGGGAAAAGATTCCCACCCAATTCAAACATTGTGCCAT  
GTCAAACAAATAGTCTATCTTCCCAGACACTGGTTTGAAGAATGTTAAGACTTGACAGTGGAACTACATTAGTA  
CACAGCACCAGAAATGTATATTAAGGTGTGGCTTTAGGAGCAGTGGGAGGGTACCAGCAGAAAGGTTAGTATCATC  
AGATAGCTCTTATACGAGTAATATGCCTGCTATTTGAAGTGTAATTGAGAAGGAAAAATTTTAGCGTGCTCACTGA  
CCTGCCTGTAGCCCCAGTGACAGCTAGGATGTGCATTCTCCAGCCATCAAGAGACTGAGTCAAGTTGTTCTTAA  
GTCAGAACAGCAGACTCAGCTCTGACATTCTGATTGCAATGACACTGTTTCAGGAATCGGAATCCTGTCGATTAGA  
CTGGACAGCTTGTGGCAAGTGAATTTCTGTAAACAAGCCAGATTTTTTAAATTTATATTGTAAATATTGTGTGT  
GTGTGTGTGTGTATATATATATATATATGTACAGTTATCTAAGTTAATTTAAAGTTGTTTGTGCCTTTTTAT  
TTTGTTTTTAATGCTTTGATATTTCAATGTTAGCCTCAATTTCTGAACACCATAGGTAGAATGTAAAGCTTGTCT  
GATCGTTCAAAGCATGAAATGGATACTTATATGGAAATTTCTCTCAGATAGAATGACAGTCCGTCAAAACAGATTG  
TTTGCAAAGGGGAGGCATCAGTGTCCCTGGCAGGCTGATTTCTAGGTAGGAAATGTGGTAGCTCACGCTCACTTT  
TAATGAACAAATGGCCTTTATTA AAAAAGTGAAGTACTCTATATAGCTGATCAGTTTTTTTACCTGGAAGCATTG  
TTTCTACTTTGATATGACTGTTTTTTCGGACAGTTTATTTGTTGAGAGTGTGACC AAAAGTTACATGTTTGCACCT  
TTCTAGTTGAAAAATAAAGTATATTTTTTCTAAAAA AAAAAAAAAAACGACAGCAACGGAATTC

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**FIGURE 65**

MTAASMGPVRVAFVLLALCSRPAVGQNC SGPCRC PD E P A R C P A G V S L V L D G C G C C R V C A K Q L G E L C T E R D P C D  
P H K G L F C D F G S P A N R K I G V C T A K D G A P C I F G G T V Y R S G E S F Q S S C K Y Q C T C L D G A V G C M P L C S M D V R L P S P D C P F  
P R R V K L P G K C C E E W C D E P K D Q T V V G P A L A A Y R L E D T F G P D P T M I R A N C L V Q T T E W S A C S K T C G M G I S T R V T N D N  
A S C R L E K Q S R L C M V R P C E A D L E E N I K K G K K C I R T P K I S K P I K F E L S G C T S M K T Y R A K F C G V C T D G R C C T P H R T T T  
L P V E F K C P D G E V M K K N M M F I K T C A C H Y N C P G D N D I F E S L Y Y R K M Y G D M A

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**FIGURE 66**

GCCCCGCCGCCGGCAGTGGACCGCTGTGCGGAACCCTGAACCTACGGTCCCGACCCGCGGGCGAGGCCGGGTA  
CCTGGGCTGGGATCCGGAGCAAGCGGGCGAGGGCAGCGCCCTAAGCAGGCCCGGAGCGATGGCAGCCTTGATGAC  
CCCGGGAACCGGGGCCCCACCCGCGCCTGGTGACTTCTCCGGGAAGGGAGCCAGGGACTTCCCGACCCTTCGCC  
AGAGCCCAAGCAGCTCCCGGAGCTGATCCGCATGAAGCGAGACGGAGGCCCTGAGCGAAGCGGACATCAGGGG  
CTTCGTGGCCGCTGTGGTGAATGGGAGCGCGCAGGGCGCACAGATCGGGGCCATGCTGATGGCCATCCGACTTCG  
GGGCATGGATCTGGAGGAGACCTCGGTGCTGACCCAGGCCCTGGCTCAGTCGGGACAGCAGCTGGAGTGGCCAGA  
GGCCTGGCGCCAGCAGCTTGTGGACAAGCATTCCACAGGGGGTGTGGGTGACAAGGTCAGCCTGGTCCTCGCACC  
TGCCCTGGCGGCATGTGGCTGCAAGGTGCCAATGATCAGCGGACGTGGTCTGGGGCACACAGGAGGCACCTTGGA  
TAAGCTGGAGTCTATTCTTGATTCAATGTCATCCAGAGCCCAGAGCAGATGCAAGTGCTGCTGGACCAGGCGGG  
CTGCTGTATCGTGGGTGAGAGTGAGCAGCTGGTTCCTGCGGACGGAATCCTATATGCAGCCAGAGATGTGACAGC  
CACCGTGGACAGCCTGCCACTCATCACAGCCTCCATTCTCAGTAAGAACTCGTGGAGGGGCTGTCCGCTCTGGT  
GGTGGACGTTAAGTTCGGAGGGGGCCCGCTCTTCCCAACCAGGAGCAGGCCCGGGAGCTGGCAAAGACGCTGGT  
TGGCGTGGGAGCCAGCCTAGGGCTTCGGGTGCGGGCAGCGCTGACCGCCATGGACAAGCCCCCTGGGTGCTGCGT  
GGGCCACGCCCTGGAGGTGGAGGAGGCGCTGCTCTGCATGGACGGCGCAGGCCCGCCAGACTTAAGGGACCTGGT  
CACCACGCTCGGGGGCGCCCTGCTCTGGCTCAGCGGACACGCGGGGACTCAGGCTCAGGGCGCTGCCCGGTGGC  
CGCGGCGCTGGACGACGGCTCGGCCCTTGGCCGCTTCGAGCGGATGCTGGCGGCGCAGGGCGTGGATCCCGGTCT  
GGCCCGAGCCCTGTGCTCGGGAAGTCCCGCAGAACGCCGGCAGCTGCTGCCTCGCGCCCGGGAGCAGGAGGAGCT  
GCTGGCGCCCGCAGATGGCACCCTGGAGCTGGTCCGGGCGCTGCCGCTGGCGCTGGTGCTGCACGAGCTCGGGGC  
CGGGCGCAGCCGCGCTGGGGAGCCGCTCCGCCTGGGGGTGGGCGCAGAGCTGCTGGTCGACGTGGGTGAGAGGCT  
GCGCCGTGGGACCCCTGGCTCCGCGTGACCGGGACGGCCCCGCGCTCAGCGGCCCGCAGAGCCGCGCCCTGCA  
GGAGGCGCTCGTACTCTCCGACCGCGGCCATTGCGCGCCCCCTCGCCCTTCGCAGAGCTCGTTCTGCCGCCGCA  
GCAATAAAGCTCCTTTGCCGCGAAA

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**FIGURE 67**

MAALMTPGTGAPPAPGDFSGEGSQGLPDPSPPEPKQLPELIRMKRDGGRLSEADIRGFVAADVNGSAQGAQIGAML  
MAIRLRGMDLEETSVLTQALAQSGQOLEWPEAWRQQQLVDKHSTGGVGDVSLVLAPALAACGCKVPMISGRGLGH  
TGGTLDKLESIPGFNVIQSPEQMQVLLDQAGCCIVGQSEQLVPADGILYAARDVTATVDSLPLITASILSKKLVE  
GLSALVVDVKFGGAAVFPNQEQAARELAKTLVGVGASLGLRVAAALTAMDKPLGRCVGHAEVEEALLCMDGAGFP  
DLRDLVTTLGGALLWLSGHAGTQAQGAARVAAALDDGSALGRFERMLAAQGVDPGLARALCSGSPAERRQLLPRA  
REQEELLAPADGTVELVRALPLALVLHELGAAGRSRAGEPLRLGVGAELLVDVGQRLRRGTPWLRVHRDGPALSGP  
QSRALQEALVLSRAPFAAPSPFAELVLPQQ

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**FIGURE 68**

AGTGGCTCTACTTTTCAGAAGAAAGTGTCTCTCTTCTGCTTAAACCTCTGTCTCTGACGGTCCCTGCCAATCGCT  
CTGGTCGACCCCAACACACTAGGAGGACAGACACAGGCTCCAACTCCACTAACCAGAGCTGTGATTGTGCCCCG  
TGAGTGGACTGCGTTGTGAGGGAGTGAGTGCTCCATCATCGGGAGAATCCAAGCAGGACCGCCATGGAGGAAGGT  
CAATATTTCAGAGATCGAGGAGCTTCCCAGGAGGCGGTGTTGCAGGCGTGGGACTCAGATCGTGCTGCTGGGGCTG  
GTGACCGCCGCTCTGTGGGCTGGGCTGCTGACTCTGCTTCTCCTGTGGCACTGGGACACCACACAGAGTCTAAAA  
CAGCTGGAAGAGAGGGCTGCCCGGAACGTCTCTCAAGTTTCCAAGAACTTGGAAGCCACCACGGTGACCAGATG  
GCGCAGAAATCCCAGTCCACGCAGATTTACAGGAACTGGAGGAACTTCGAGCTGAACAGCAGAGATTGAAATCT  
CAGGACTTGGAGCTGTCTTGGAACCTGAACGGGCTTCAAGCAGATCTGAGCAGCTTCAAGTCCCAGGAATTGAAC  
GAGAGGAACGAAGCTTCAGATTTGCTGGAAGACTCCGGGAGGAGGTGACAAAGCTAAGGATGGAGTTGCAGGTG  
TCCAGCGGCTTTGTGTGCAACACGTGCCCTGAAAAGTGGATCAATTTCCAACGGAAGTGCTACTACTTCGGCAAG  
GGCACCAGCAGTGGGTCCACGCCCCGGTATGCCTGTGACGACATGGAAGGGCAGCTGGTCAGCATCCACAGCCCG  
GAGGAGCAGGACTTCCTGACCAAGCATGCCAGCCACACCGGCTCCTGGATTGGCCTTCGGAAGTTGGACCTGAAG  
GGAGAGTTTATCTGGGTGGATGGGAGCCATGTGGACTACAGCAACTGGGCTCCAGGGGAGCCCACCAGCCGGAGC  
CAGGGCGAGGACTGCGTGATGATGCGGGGCTCCGGTTCGCTGGAACGACGCCTTCTGCGACCGTAAGCTGGGCGCC  
TGGGTGTGCGACCGGCTGGCCACATGCACGCCGCCAGCCAGCGAAGGTTCCGCGGAGTCCATGGGACCTGATTCA  
AGACCAGACCCTGACGGCCGCTGCCACCCCCCTCTGCCCCCTCTCCACTCTTGAGCATGGATACAGCCAGGCCCA  
GAGCAAGACCCTGAAGACCCCCAACACGGCCTAAAAGCCTCTTTGTGGCTGAAAGGTCCCTGTGACATTTTCTG  
CCACCCAAACGGAGGCAGCTGACACATCTCCCGCTCCTCTATGGCCCCTGCTTCCCAGGAGTACACCCCAACAG  
CACCCTCTCCAGATGGGAGTGCCCCAACAGCACCCTCTCCAGATGAGAGTACACCCCAACAGCACCCTCTCCAG  
ATGCAGCCCCATCTCCTCAGCACCCCAGGACCTGAGTATCCCCAGCTCAGGTGGTGAGTCCTCCTGTCCAGCCTG  
CATCAATAAAATGGGGCAGTGATGGCCTCC

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**FIGURE 69**

MEEGQYSEIEELPRRRCCRRGTQIVLLGLVTAALWAGLLTLLLLWHWDTTQSLKQLEERAARNVSQVSKNLESHH  
GDQMAQKSQSTQISQEEELRAEQRLKSQDLELSWNLNGLQADLSSFKSQELNERNEASDLLERLREEVTKLRM  
ELQVSSGFVCNTCPEKWINFQRKCYFFGKGTKQVWHARYACDDMEGQLVSIHSPEEQDFLTKHASHTGSWIGLRN  
LDLKGEFIWVDGSHVDYSNWAPGEPTSRSQGEDCVMMRGSGRWNDAFCDRKLGAWVCDRLATCTPPASEGSAESM  
GPDSRPDPDGRLP TPSAPLHS

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**FIGURE 70**

AGACAATTTTCAGCAGGAAGAAGTAGAAAGGATAAAATGGATCCTGCACCACGGGAACCTCACAGCACCTCACTT  
CTTTTGGTTTTCTTTCTTTTGGGGCACCTCTGGACTCACTCCCCAGCATGAAGGCGCTGAGCCCGGTGCGCGGC  
TGCTACGAGGCGGTGTGCTGCCTGTCGGAACGCAGTCTGGCCATCGCCGGGGCCGAGGGAAGGGCCCGGCAGCT  
GAGGAGCCGCTGAGCTTGCTGGACGACATGAACCACTGCTACTCCCGCTGCGGGAACCTGGTACCCGGAGTCCCG  
AGAGGCACTCAGCTTAGCCAGGTGGAAATCCTACAGCGCGTCATCGACTACATTCTCGACCTGCAGGTAGTCCTG  
GCCGAGCCAGCCCCCTGGACCCCCCTGATGGCCCCCACCTTCCCATCCAGACAGCCGAGCTCGCTCCGGAACCTTGTC  
ATCTCCAACGACAAAAGGAGCTTTTGCCACTGACTCGGCCGTGTCCTGACACCTCCAGAACGCAGGTGCTGGCGC  
CCGTTCTGCCTGGGACCCCGGGAACCTCTCCTGCCGGAAGCCGGACGGCAGGGATGGGCCCCAACTTCGCCCTGC  
CCACTTGACTTCACCAAATCCCTTCCTGGAGACTGAACCTGGTGCTCAGGAGCGAAGGACTGTGAACCTTGTTGCC  
TGAAGAGCCAGAGCTAGCTCTGGCCACCAGCTGGGCGACGTCACCCTGCTCCACCCCAAGTTCTAAGGT  
CTTTTCAGAGCGTGGAGGTGTGGAAGGAGTGGCTGCTCTCCAAACTATGCCAAGGCGGCGGCAGAGCTGGTCTTC  
TGGTCTCCTTGGAGAAAGGTTCTGTTGCCCTGATTTATGAACTCTATAATAGAGTATATAGGTTTTGTACCTTTT  
TTACAGGAAGGTGACTTTCTGTAACAATGCGATGTATATTAACTTTTTATAAAAGTTAACATTTTGCATAATAA  
ACGATTT

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**FIGURE 71**

MDPAPREPHSTSLLLVFFLFGAPLDSLPSMKALSPVRGCYEAVCCLSERSLAIARGRGKGPAAEEPLSLDDMNH  
CYSRLRELVPGVPRGTQLSQVEILQRVIDYILDQVVLAEPAPGPPDGPHLPIQTAEAPELVISNDKRSFCH



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**FIGURE 72A**

GGCGGGAGCGCGTGCGCCGAGGACCCGGCCGGAAGGCTTGCGCCAGCTCAGGATGAGGACAGGCTGGGCGACCC  
CTCGCCGCCCGGCGGGGCTCCTCATGCTGCTCTTCTGGTTCTTCGATCTCGCGGAGCCCTCTGGCCGCGCAGCTA  
ATGACCCCTTCACCATCGTCCATGGAAATACGGGCAAGTGCATCAAGCCAGTGATGGCTGGATAGTAGCAGACG  
ACTGTGATGAAACTGAGGACAAGTTATGGAAGTGGGTGTCACGATCGGCTCTTTCATTTGCACTCCCAAAAGT  
GCCTTGGCCTCGATATTACCAAATCGGTAATGAGCTGAGAATGTTTCACTGTGACTCCAGTGCCATGCTGTGGT  
GGAAATGTGAGCACCCTCTCTGTACGGAGCTGCCCGGTACCGGCTGGCTCTGAAGGATGGACATGGCACAGCAA  
TCTCAAATGCATCTGATGTCTGGAAGAAAGGAGGCTCAGAGGAAAGCCTTTGTGACCAGCCTTATCATGAGATCT  
ATACCAGAGATGGGAACTCTTATGGGAGACCTTGTGAATTTCCATTCTTAATTGATGGGACCTGGCATCATGATT  
GCATTCTTGATGAAGATCATAGTGGGCCATGGTGTGCCACCACCTTAAATTATGAATATGACCGAAAGTGGGGCA  
TCTGCTTAAAGCCTGAAAACGGTTGTGAAGATAATTGGGAAAAGAACGAGCAGTTTGGAAAGTTGCTACCAATTTA  
ATACTCAGACGGCTCTTCTTGGAAAGAAGCTTATGTTTCATGTGAGAATCAAGGAGCTGATTTACTGAGCATCA  
ACAGTGTCTGAATTAACCTTAAAGAAAAAGAAGGCATTGCTAAGATTTTCTGGATTGGTTTAAATCAGC  
TATACTCTGCTAGAGGCTGGGAATGGTCAGACCACAAACCATTAAACCTTCTCAACTGGGATCCAGACAGGCCCA  
GTGCACCTACTATAGGTGGCTCCAGCTGTGCAAGAATGGATGCTGAGTCTGGTCTGTGGCAGAGCTTTTCTGTG  
AAGCTCAACTGCCCTATGTCTGCAGGAAACCATTAAATAATACAGTGGAGTTAACAGATGTCTGGACATACTCAG  
ATACCCGCTGTGATGCAGGCTGGCTGCCAATAATGGATTTTGTCTATCTGCTGGTAAATGAAAGTAATTCCTGGG  
ATAAGGCACATGCGAAATGCAAAGCCTTCAGTAGTGACCTAATCAGCATTCTCTTAGCAGATGTGGAGGTGG  
TTGTCAAAAACCTCCATAATGAGGATATCAAAGAAGAAGTGTGGATAGGCCTTAAGAACATAAACATACCAACTT  
TATTTCACTGGTCAAGTACTGAAGTTACTCTAACATATTGGGATGAGAATGAGCCAAATGTTCCCTACAATA  
AGACGCCCAACTGTGTTTCTTACTTAGGAGAGCTAGGTCACTGGAAAGTCCAATCATGTGAGGAGAACTAAAAT  
ATGTATGCAAGAGAAAGGGAGAAAACTGAATGACGCAAGTTCTGATAAGATGTGTCTCCAGATGAGGGCTGGA  
AGAGACATGGAGAAACCTGTTACAAGATTTATGAGGATGAGGTCCCTTTTGGAAACAACTGCAATCTGACTATCA  
CTAGCAGATTTGAGCAAGAATACCTAAATGATTTGATGAAAAAGTATGATAAATCTCTAAGAAAATACCTTCTGGA  
CTGGCCTGAGAGATGTAGATTCTTGTGGAGAGTATAACTGGGCAACTGTTGGTGGAAAGAGCGGGCTGTAACCT  
TTTCCAACCTGGAATTTTCTTGAGCCAGCTTCCCCGGGCGGCTGCGTGGCTATGTCTACTGGAAAGTCTGTTGGAA  
AGTGGGAGGTGAAGGACTGCAGAAGCTTCAAAGCACTTTCAATTTGCAAGAAAATGAGTGGACCCCTTGGGCCTG  
AAGAAGCATCCCCTAAGCCTGATGACCCCTGTCTGAAGGCTGGCAGAGTTTCCCCGCAAGTCTTTCTTGTTATA  
AGGTATTCCATGCAGAAAGAAATTGTAAGAAAGAGGAAGTGGGAAGAAGCTGAACGATTCTGCCAAGCCCTTGGAG  
CACACCTTTCTAGCTTCAGCCATGTGGATGAAATAAAGGAATTTCTTCACTTTTAAACGGACCAGTTCAGTGGCC  
AGCATTGGCTGTGGATTGGTTTGAATAAAAGGAGCCAGATTTACAAGGATCCTGGCAATGGAGTGATCGTACAC  
CAGTGTCTACTATTATCATGCCAAATGAGTTTCAGCAGGATTATGACATCAGAGACTGTGCTGCTGCAAGGTAT  
TTCATAGGCCATGGCGAAGAGGCTGGCATTCTATGATGATAGAGAATTTATTTATTTGAGGCCCTTTGCTTGTG  
ATACAAAACCTTGAATGGGTGTGCCAAATTCAAAAGGCCGTACTCCAAAACACCAGACTGGTACAATCCAGACC  
GTGCTGGAATTCATGGACCTCCACTTATAATTGAAGGAAGTGAATATTGGTTTGTGCTGATCTTCACTTAACT  
ATGAAGAAGCCGCTCTGTACTGTGCCAGCAATCACAGCTTTCTTGCAGCTATAACATCTTTTGTGGGACTAAAAG  
CCATCAAAAACAAAATAGCAAATATATCTGGTGATGGACAGAAGTGGTGGATAAGAATTAGCGAGTGGCCAATAG  
ATGATCATTTTACATACTCACGATATCCATGGCACCGCTTTCTGTGACATTTGGAGAGGAATGCTTGTACATGT  
CTGCCAAGACTTGGCTTATCGACTTAGGTAAACCAACAGACTGTAGTACCAAGTTGCCCTTCATCTGTGAAAAAT  
ATAATGTTTCTTCGTTAGAGAAATACAGCCAGATTCTGCAGCTAAAGTGCAATGTTCTGAGCAATGGATTCCCTT  
TTCAGAATAAGTGTCTTCTAAAGATCAAACCCGTGTCTCTCACATTTTCTCAAGCAAGCGATACCTGTCACTCCT  
ATGGTGGCACCCCTTCTTCAGTGTGAGCCAGATTGAACAAGACTTTATTACATCCTTGCTTCCGGATATGGAAG  
CTACTTTATGGATTGGTTTGCCTGACTGCCTATGAAAAGATAAACAAATGGACAGATAACAGAGAGCTGACGT  
ACAGTAACCTTACCCATTATTGGTTAGTGGGAGGCTGAGAATACCAGAAAATTTTTTGGAGGAAGAGTCTCGCT  
ACCACTGTGCCCTAATACTCAACCTCCAAAATCACCCTTACTGGGACGTGGAATTTTACATCCTGCAGTGAAC  
GCCACTTTGTGTCTCTGTGTCAGAAATATTGAGAAGTTAAAGCAGACAGACGTTGCAGAATGCTTCAGAACTG  
TAAAGTATCTAAATAATCTGTACAAAATAATCCCAAAGACTCTGACTTGGCACAGTGCTAAAAGGGAGTGTCTGA  
AAAGTAACATGCAGCTGGTGGAGCATCAGGACCCCTTACCAGCAGGCATTCTCAGTGTGAGGCGCTCCTTCACA  
ACTCTTCTTATGGATCGGACTCTTCAGTCAAGATGATGAACCTCAACTTTGGTTGGTTCAGATGGGAAACGTCTTC

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**FIGURE 72B**

ATTTTAGTCGCTGGGCTGAACTAATGGGCAACTCGAAGACTGTGTAGTATTAGACACTGATGGATTCTGGAAAA  
CAGTTGATTGCAATGACAATCAACCAGGTGCTATTTGCTACTATTCAGGAAATGAGACTGAAAAAGAGGTCAAAC  
CAGTTGACAGTGTTAAATGTCCATCTCCTGTTCTAAATACTCCGTGGATACCATTTTCAGAACTGTTGCTACAATT  
TCATAATAACAAAGAATAGGCATATGGCAACAACACAGGATGAAGTTCATACTAAATGCCAGAACTGAATCCAA  
AATCACATATTCTGAGTATTCGAGATGAAAAGGAGAATAACTTTGTTCTTGAGCAACTGCTGTACTTCAATTATA  
TGGCTTCATGGGTCATGTTAGGAATAACTTATAGAAATAATTCTCTTATGTGGTTTGATAAGACCCCACTGTCTAT  
ATACACATTGGAGAGCAGGAAGACCAACTATAAAAAATGAGAAGTTTTTGGCTGGTTTAAGTACTGACGGCTTCT  
GGGATATTCAAACCTTTAAAGTTATTGAAGAAGCAGTTTATTTTCACCAGCACAGCATTCTTGCTTGTAAAATTG  
AAATGGTTGACTACAAAGAAGACATAATACTACACTGCCACAGTTTATGCCATATGAAGATGGTATTTACAGTG  
TTATTCAAAAAAGGTAACATGGTATGAAGCATTAAACATGTGTTCTCAAAGTGGAGGTCACCTGGCAAGCGTTT  
ACAACCAAAATGGCCAGCTCTTTCTGGAAGATATTGTAACCGTGATGGATTTCCTACTATGGGTTGGGCTCTCAA  
GTCATGATGGAAGTGAATCAAGTTTTGAATGGTCTGATGGTAGTACATTTGACTATATCCCATGGAAAGGCCAAA  
CATCTCCTGGAAATTGTGTTCTCTTGATCCAAAAGGAACTTGGAACATGAAAAATGCAACTCTGTTAAGGATG  
GTGCTATTTGTTATAAACCTACAAAATCTAAAAAGCTGTCCCGTCTTACATATTCATCAAGATGTCCAGCAGCAA  
AAGAGAATGGGTCACGGTGGATCCAGTACAAGGGTCACTGTTACAAGTCTGATCAGGCATTGCACAGTTTTTCAG  
AGGCCAAAAAATTGTGTTCAAACATGATCACTCTGCAACTATCGTTTTCCATAAAAGATGAAGATGAGAATAAAT  
TTGTGAGCAGACTGATGAGGGAAAATAATAACATTACCATGAGAGTTTTGGCTTGGATTATCTCAACATTCTGTTG  
ACCAGTCTTGGAGTTGGTTAGATGGATCAGAAGTGACATTTGTCAAATGGGAAAATAAAAGTAAGAGTGGTGTG  
GAAGATGTAGCATGTTGATAGCTTCAAATGAACTTGGAAGAAAGTTGAATGTGAACATGGTTTTGGAAGAGTTG  
TCTGCAAAGTGCCCTCTGGGCCCTGATTACACAGCAATAGCTATCATAGTTGCCACACTAAGTATCTTAGTTCTCA  
TGGGCGGACTGATTTGGTTCCCTCTTCCAAAGGCACCGTTTTGCACCTGGCGGGTTTCTCATCAGTTCGATATGCAC  
AAGGAGTGAATGAAGATGAGATTATGCTTCCTTCTTCCATGACTAAATTCTTCTAAAAGTTTTCTAATTTGCAC  
TAATGTGGTTATGGAGAAATTAGTCACCTTAAATGTCCAGTGTCAGTATTTACTCTGCTCCAAAGTAGAACTCT  
TAAATACTTTTTTCAGTTGTTTAGATCTTAGGCATGTGCTGGTATCCACAGTTAATCCCTGCTAAATGCCATGTT  
TATCACCTTAATTAATAGAATGGAGGGGACTCCAAAGCTGGAAGTGAAGTCCAAATTGTTTGTACAGTAATATGT  
TTAATGTTCATTTTCTCTGTATGAATGTGATTGGTAACTAGGATATGTATATTTAATAGAATTTTAAACAAAAC  
TTCTTAGAAAAATAAATAGGCATATTACTAGGTGACATGTCTACTTTTTAATTTTTTAAGAGCATCCGGCCAAAT  
GCAAAATTAGTACCTCAAAGTAAAAATTGAAGTGTAACTCTATCAGCATTGTTTCAAATAGTCATTTTTAGCA  
CTGGGGAAAAATAACAATAAGACATGCTTACTTTTTAATTTTTATTTTTTTGAGACTGAGTCTCTCTGTTGC  
CCAGGCTGGAGTACAATGGCGTGATCTCGGCTCACTGCAAATCTCCGCCTCCAGGTTCAAGCGATTCTCTGCC  
TCAGCCTCCTGAGTAGCTGGGATTACAGGCAACTGCCACCATGCCCGGCTAATTTTTGTATTTTTTAGTAGAGATG  
GGGTTTACCATGTTGGCCAGGCTGGTCTCGAACTCGTGACCGCAGTGATCCTCCCGCCTCGGCCTCCCAAAGTG  
CTGGGATTACAGGCATGAGCCACCGCGCCTGGCCTCTGCTTACTTTTTATATAGCAAAATGATTCCCCTTGCAA  
GATGTTTCTTATATTATTCCAAAGTTATTTTATACCATTATTATGTAAATATGAAGAGTTTTTTCTGTTTATAA  
TTGTTTATAAAACAATGACTTTTTAAAGATTTAGTGCTTAACATTTTTCCCAAGTGTTGGGAACATTATTTTTAGATT  
GAGTAGGTACCTTGTAGCAGTGCTTTGCATTTTCTGATGTATTACATGACTGTTTCTTTTGTAAAGAGAATCA  
ACTAGGTATTTAAGACTGATAATTTTACAATTTATATGCTTCACATAGCATGTCAACTTTTGACTAAGAATTTTG  
TTTTACTTTTTTAAACATGTGTTAAACAGAGAAAGGGTCCATGAAGGAAAGTGATGAGTTGCATTTGTAAAAATG  
AGACTTTTTTCAGTGGAACCTCTAAACCTTGTGATGACTACTAACAATGTAAAATTATGAGTGATTAAGAAAACAT  
TGCTTTGTGGTTATCACTTTAAGTTTTGACACCTAGATTATAGTCTTAGTAATAGCATCCACTGGAAAAAGGTGAA  
AATGTTTTATTTCAGCATTTAACTTACATTTGTACTTTAGAGTATTTTTGTATAAAATCCATAGATTTATTTTACA  
TTTAGAGTATTTTACACTATGATAAAGTTGTAAATAATTTTCTAAGACAGTTTTTATATAGTCTACAGTTGTCCTG  
ATTTCTTATTGAATTTGTTAGACTAGTTCTCTTGTCTGTGATCTGTGTACAATTTTAGTCACTAAGACTTTTCT  
CCAAGAATAAGCCAACCTTGATGTGAAAAGCACGGCTGTATATAATGGTGATGTCATAATAAAGTTGTTTTATCT  
TTTAAGTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 73**

MRTGWATPRRPAGLLMLLFWFFDLAEPSSGRAANDPFTIVHGNTGKCIKPVYGWIVADDCDEDEDKLWKWVSQHRL  
FHLHSQKCLGLDITKSVNELRMFSCDSSAMLWWKCEHHSLYGAARYRLALKDGHGTAISNASDVWKKGGSEESLC  
DQPYHEIYTRDGSYGRPCFEFPLIDGTWHHDCILDEDHSGPWCATTNLNHEYDRKWGICLKPENGCEDNWEKNEQ  
FGSCYQFNTQTALSWKEAYVSCQNQGADLLSINSAAELTYLKEKEGIAKIFWIGLNQLYSARGWEWSHKPLNFL  
NWDPRPSAPTIGGSSCARMDAESGLWQSFSCEAQLPYVCRKPLNNTVELTDVWTYSOTRCAGWLPNNGFCYLL  
VNESNSWDKAHAKCKAFSSDLISIHSLADVEVVVTKLHNEDIKEEVWIGLKNINIPTLFQWSDGTEVTLTYWDEN  
EPNVPYNKTPNCVSYLGELGQWKVQSCEEKLYVC KRKGEKLNDASSDKMCPDEGWKRHGETCYKIYEDEVFPG  
TNCNLITISRFEQEYLNDLMKKYDKSLRKYFWTGLRDVDSCEYNWATVGRRRAVTFSNWNFLEPASPGGCVAM  
STGKSVGKWEVKDCRSFKALSICKMSGPLGPEEASPKPDDPCPEGWQSFPASLSCYKVFHAERIVRKRNWEEAE  
RFCQALGAHLSSF SHVDEIKEFLHFLTDQFSGQHWLWIGLNKRSPDLQGSWQWSDRTPVSTIIMPNEFQQDYDIR  
DCAAVKVFHRPWRRGWHFYDDREFIYLRPFACDTKLEWVCQIPKGRTPKTPDWYNPDRAGIHGPPLIIEGSEYWF  
VADLHLNYYEAVLYCASNHSFLATITSFVGLKAIKNKIANISGDGQKWWIRISEWPIDDHFTYSRYPWHRFPVTF  
GEECLYMSAKTWLIDLKPTDCSTKLPFICEKYNVSSLEKYSPPSAKVQCSEQWIPFQNKCFKIKPVSLTFSQ  
ASDTCHSYGGTLP SVLSQIEQDFITSLLPDMEATLWIGLRWTAYEKINKWTDNRELTYSNFHLLVSGRLRIPEN  
FFEEESRYHCALIINLQKSPFTGTWNFTSCSERHFVSLCQKYSEVKSRQTLQNASSETVKYLNNLYKIIPKTLTWH  
SAKRECLKSNMQLVSITDPYQQAFLSVQALLHNSSLWIGLFSQDDELNFGWSDGKRLHFSRWAETNGQLED CVVL  
DTDGFWKTDCNDNQPGAICYYSNETEKEVKPVD SVKCPSPVLNTPWIPFQNCYNFIIITKNRHMATTQDEVHT  
KCQKLNPKSHILSIRDEKENNFVLEQLLYFN YMASWVMLGITYRNNSLMWFDKTPLSYTHWRAGRPTIKNEKFLA  
GLSTDGFWDIQT FKVIEEAVYFHQHSILACKIEMVDYKEEHNTTLPQFMPYEDGIYSVIQKKVTWYEALNMCSQS  
GGHLASVHNQNGQLFLEDIVKRDGFPLWVGLSSHDGSESSF EWSDGSTFDYIPWKGQTSPGNCVLLDPKGTWKHE  
KCNSVKDGAICYKPTKSKKLSRLTYSSRCPAAKENGSRWIQYKGHCYKSDQALHSFSEAKKLCSKHDHSATIVSI  
KDEDENKFVSRLMRENNNITMRVWLGLSQHSVDQSWSWLDGSEVTFVKWENKSKSGVGRC SMLIASNETWKKVEC  
EHGFGRVVCKVPLGPDYTAIAIIVATLSILVLMGGLIWFLFQRHRLHLAGFSSVRYAQGVNEDEIMLP SFHD

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**FIGURE 74**

GCGGCGGCGGCGGCGCAGTTTGTCTACACTTTGTGACTTGCGGTCACAGTGGCATTTCAGCTCCACACTTGGTAGA  
ACCACAGGCACGACAAGCATAGAAACATCCTAAACAATCTTCATCGAGGCATCGAGGTCCATCCCAATAAAAATC  
AGGAGACCCCTGGCTATCATAGACCTTAGTCTTCGCTGGTATACTCGCTGTCTGTCAACCAGCGGTTGACTTTTTT  
TAAGCCTTCTTTTTTCTCTTTTACCAGTTTCTGGAGCAAATTCAGTTTGCCTTCCTGGATTGTAAATTGTAATG  
ACCTCAAAACCTTAGCAGTTCTTCCATCTGACTCAGGTTTGTCTCTCTGGCGGTCTTCAGAATCAACATCCACAC  
TTCCGTGATTATCTGCGTGCATTTTGGACAAAGCTTCCAACCAGGATACGGGAAGAAGAAATCGCTGGTGATCTT  
TCAGCAGGTTTCTTCATGGAGGAACCTTAATACATACCGTCAGAAGCAGGGAGTAGTACTTAAATATCAAGAACTG  
CCTAATTCAGGACCTCCACATGATAGGAGGTTTACATTTCAAGTTATAATAGATGGAAGAGAATTTCCAGAAGGT  
GAAGGTAGATCAAAGAAGGAAGCAAAAATGCCGCAGCCAAATTAGCTGTTGAGATACTTAATAAGGAAAAGAAG  
GCAGTTAGTCCTTTATTATTGACAACAACGAATTCCTCAGAAGGATTATCCATGGGGAATTACATAGGCCTTATC  
AATAGAATTGCCCAGAAGAAAAGACTAAGTGTAAATTATGAACAGTGTGCATCGGGGGTGCATGGGCCAGAAGGA  
TTTCATTATAAATGCAAAATGGGACAGAAAGAATATAGTATTGGTACAGGTTCTACTAAACAGGAAGCAAAACAA  
TTGGCCGCTAAACTTGCATATCTTCAGATATTATCAGAAGAAACCTCAGTGAAATCTGACTACCTGTCTCTGGT  
TCTTTTGCTACTACGTGTGAGTCCCAAAGCAACTCTTTAGTGACCAGCACACTCGCTTCTGAATCATCATCTGAA  
GGTGACTTCTCAGCAGATACATCAGAGATAAATTCCTAACAGTGACAGTTTAAACAGTTCTTCGTTGCTTATGAAT  
GGTCTCAGAAATAATCAAAGGAAGGCAAAAAGATCTTTGGCACCCAGATTTGACCTTCCTGACATGAAAGAAACA  
AAGTATACTGTGGACAAGAGGTTTGGCATGGATTTTAAAGAAATAGAATTAATTGGCTCAGGTGGATTGGCCAA  
GTTTTCAAAGCAAAACACAGAATTGACGGAAAGACTTACGTTATTAAACGTGTTAAATATAATAACGAGAAGGCG  
GAGCGTGAAGTAAAAGCATTGGCAAACCTTGATCATGTAAATATTGTTCACTACAATGGCTGTTGGGATGGATTT  
GATTATGATCCTGAGACCAGTGATGATTCCTTGGAGAGCAGTGATTATGATCCTGAGAACAGCAAAAATAGTTCA  
AGGTCAAAGACTAAGTGCCTTTTATCCAAATGGAATTCCTGTGATAAAGGACCTTGAACAATGGATTGAAAAA  
AGAAGAGGCGAGAACTAGACAAAGTTTTGGCTTTGGAACCTCTTGAACAAATAACAAAAGGGGTGGATTATATA  
CATTCAAAAAAATTAATTCATAGAGATCTTAAGCCAAGTAATATATTCTTAGTAGATACAAAACAAGTAAAGATT  
GGAGACTTTGGACTTGTAAACATCTCTGAAAAATGATGGAAAGCGAACAAGGAGTAAGGGAACCTTGCATACATG  
AGCCCAGAACAGATTTCTTCGAAGACTATGGAAAGGAAGTGGACCTCTACGCTTTGGGGCTAATTCTTGCTGAA  
CTTCTTCATGTATGTGACACTGCTTTTGAACATCAAAGTTTTTCACAGACCTACGGGATGGCATCATCTCAGAT  
ATATTTGATAAAAAAGAAAAACTCTTCTACAGAAATTACTCTCAAAGAAACCTGAGGATCGACCTAACACATCT  
GAAATACTAAGGACCTTGACTGTGTGGAAGAAAAGCCCAGAGAAAAATGAACGACACACATGTTAGAGCCCTTCT  
GAAAAAGTATCCTGCTTCTGATATGCAGTTTTCTTAAATTATCTAAAATCTGCTAGGGAATATCAATAGATATT  
TACCTTTTATTTTAAATGTTTCCTTTAATTTTTTACTATTTTTACTAATCTTCTGCAGAAACAGAAAGGTTTTCT  
TCTTTTGTCTCAAAAACATTCTTACATTTTACTTTTTCTGGCTCATCTCTTTATTCTTTTTTTTTTTTTTAA  
GACAGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAATGACACAGTCTTGGCTCACTGCAACTCTGCCTCTTGG  
GTTCAAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGATTACAGGCATGTGCCACCCACCCAATAATTTT  
GTGTTTTTAATAAAGACAGGGTTTACCATGTTGGCCAGGCTGGTCTCAAACCTCGACCTCAAGTAATCCACCT  
GCCTCGGCCTCCCAAAGTGCTGGGATTACAGGGATGAGCCACCGCGCCAGCCTCATCTCTTGTCTAAAGATG  
GAAAAACCACCCCCAAATTTCTTTTATACTATTAATGAATCAATCAATTCATATCTATTTATTAATTTCTAC  
CGCTTTTAGGCCAAAAAATGTAAGATCGTTCTCTGCCTCACATAGCTTACAAGCCAGCTGGAGAAATATGGTAC  
TCATTAAAAAAGTATGTACAACC

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**FIGURE 75**

MAGDLSAGFFMEELNTYRQKQGVLKYQELPNSGPPHRRFTFQVIIDGREFPEGEGRSKKEAKNAAKLAVEIL  
NKEKKAVSPLLLTTTNSSEGLSMGNYIGLINRIAQKKRLTVNYEQCASGVHGPEGFHYKCKMGQKEYSIGTGSTK  
QEAKQLAAKLAYLQILSEETSVKSDYLSSGSFATTCESQSNSLVTSTLASESSSEGDFSADTSEINSNSDSLNS  
SLLMNGLRNNQRKAKRSLAPRFDLPDMKETKYTVDKRFGMDFKEIELIGSGGFGQVFKAKHRIDGKTYVIKRVKY  
NNEKAEREVKALAKLDHVNI VHYNGCWDGFDYDPETSDDSLESSDYDPENSKNSSRSKTKCLFIQMEFCDKGTLE  
QWIEKRRGEKLDKVLALLELFEQITKGVDYIHSKKLIHRDLKPSNIFLVDTKQVKIGDFGLVTSKNDGKRTRSKG  
TLRYMSPEQISSQDYGKEVDLYALGLILAELLHVCDTAFETSKFFTDLRDGIISDIFDKKEKTLLQKLLSKKPED  
RPNTSEILRILTVWKKSPKNERHTC

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**FIGURE 76**

GGCACGAGGATTGCTGCTCCGCAGCACGGCCGAGCTGGTCCGGTCAAGAGTCGGGATTGTGGGGAGAGGTTT  
TCCACTGGTCAAGAGAAGGCTTTAAGAAAGACGGTATTAATCTCCCGTTGCGGCTCCCGCCTGGTCCCATTCT  
GCCCGCTCCTCCAGGAAATGAATCTGCTGCCGAATATTGAGAGTCCAGTGACTCGGCAGGAGAAGATGGCGACCG  
TGTGGGATGAGGCCGAGCAAGATGGAATTGGGGAGGAGGTGCTCAAGATGTCCACGGAGGAGATCATCCAGCGCA  
CACGGCTGCTGGACAGTGAGATCAAGATCATGAAGAGTGAAGTGTGAGAGTCACCCATGAGCTCCAAGCCATGA  
AGGACAAGATAAAAGAGAACAGTGAGAAAATCAAAGTGAACAAGACCCTGCCGTACCTTGTCTCCAACGTCATCG  
AGCTCCTGGATGTTGATCCTAATGACCAAGAGGAGGATGGTGCCAATATTGACCTGGACTCCCAGAGGAAGGGCA  
AGTGTGCTGTGATCAAAACCTCTACACGACAGACGTACTTCCTTCCTGTGATTGGGTTGGTGGATGCTGAAAAGC  
TAAAGCCAGGAGACCTGGTGGGTGTGAACAAAGACTCCTATCTGATCCTGGAGACGCTGCCCACAGAGTATGACT  
CGCGGTGAAGGCCATGGAGGTAGACGAGAGGCCACGGAGCAATACAGTGACATTGGGGGTTTGGACAAGCAGA  
TCCAGGAGCTGGTGGAGGCCATTGTCTTGCCAATGAACCACAAGGAGAAGTTTGAGAACTTGGGGATCCAACCTC  
CAAAAGGGGTGCTGATGTATGGGCCCCCAGGGACGGGGAAGACCCTCCTGGCCCGGGCCTGTGCCGCACAGACTA  
AGGCCACCTTCCTAAAGCTGGCTGGCCCCCAGCTGGTGCAGATGTTTCATTGGAGATGGTGCCAAGCTAGTCCGGG  
ATGCCTTTGCCCTGGCCAAGGAGAAAGCGCCCTCTATCATCTTCATTGATGAGTTGGATGCCATCGGCACCAAGC  
GCTTTGACAGTGAGAAGGCTGGGGACCGGGAGGTGCAGAGGACAATGCTGGAGCTTCTGAACCAGCTGGATGGCT  
TCCAGCCCAACACCCAAGTTAAGGTAATTGCAGCCACAAACAGGGTGGACATCCTGGACCCCGCCCTCCTCCGCT  
CGGGCCGCTTGACCGCAAGATAGAGTTCCCGATGCCCAATGAGGAGGCCCGGGCCAGAATCATGCAGATCCACT  
CCCGAAAGATGAATGTCAGTCTGACGTGAACCTACGAGGAGCTGGCCCCGCTGCACAGATGACTTCAATGGGGCCC  
AGTGCAAGGCTGTGTGTGTGGAGGCGGGCATGATCGCACTGCGCAGGGGTGCCACGGAGCTACCCACGAGGACT  
ACATGGAAGGCATCCTGGAGGTGCAGGCCAAGAAGAAAGCCAACCTACAATACTACGCCTAGGGGCACACAGGCCA  
GCCCCAGTCTCACGGCTGAAGTGCGCAATAAAAGATGGTTTtagggTCCCTGCCAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 77**

MNLLPNIESPVTRQEKMATVWDEAEQDGIGEEVLKMSTEEIIQRTRLLDSEIKIMKSEVLRVTHELQAMKDKIKE  
NSEKIKVNKTLPYLVSNVIELLDVDPNDQEEDGANIDLDSQRKGKCAVIKTSTRQTYFLPVIGLVDAEKLKPGDL  
VGVNKDSYLILETLPTHEYDSRVKAMEVDERPTEQYSDIGGLDKQIQELVEAIVLPMNHKEKFENLGIQPPKGVLM  
YGPPGTGKTILLARACAAQTKATFLKLAGPQLVQMF IGDGAKLVRDFAFAKEKAPSIIFIDELDAIGTKRFDSEK  
AGDREVQRTMLELLNQLDGFQPNQVKVIAATNRVD ILDPALLRSGRLDRKIEFFMPNNEEARARIMQIHSRKMNV  
SPDVNYEELARCTDDFNGAQCKAVCVEAGMIALRRGATELTHEDYMEGILEVQAKKKANLQYYA

### FIGURE 78

[illegible]



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**FIGURE 79**

MRRCN SGSGPPPSLLLLLLWLLAVPGANAAPRSALYSPSDPLTLLQADTVRGAVLGSRSAWAVEFFASWCGHCIA  
FAPTWKALAEDVKAWRPALYLAALDCAEETNSAVCRDFNIPGFPTVRFFKAFTKNGSGAVFPVAGADVQTLRERL  
IDALESHHDTWPPACPPLEPAKLEEIDGFFARNNEEYLALIFEKGGSYLGREVALDLSQHKGVAVRRVLNTEANV  
VRKFGVTDFFPSCYLLFRNGSVSRVPVLMESRSFYTAYLQRLSGLTREAAQTTVAPTTANKIAPT VWKLADRSKIY  
MADLESALHYILRIEVGRFPVLEGQRLVALKKFVAVLAKYFPGRPLVQNFLHSVNEWLKRQKRNKIPYSFFKTAL  
DDRKEGAVLAKKVNWIGCQGSEPHFRGFPCSLWVLFHFLT VQAARQNVDSQEAAKAKEVLP AIRGYVHYFFGCR  
DCASHFEQMAAASMRVGS PNAAVLWLWSSHNRVNARLAGAPSEDPQFPKVQWPPRELCSACHNERLDVPVWDVE  
ATLNFLKAHFSPSNIILD FPAAGSAARRDVQNVAAPELAMGALELESRNSTLDPGKPEMMKSPTNTTPHVPAEG  
PEASRPPKLHPGLRAAPGQEPPEHMAELQRNEQEQLGQWHLSKRDTGAALLAESRAEKNRLWGPLEVRRVGRSS  
KQLVDIPEGQLEARAGRGRGWLQVLGGGFSYLDI SLCVGLYSLSF MGLLAMTYFQAKIRALKGHAGHPAA

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**FIGURE 80**

AAGGACACGGGCAGCAGACAGTGGTCAGTCCTTTCTTGGCTCTGCTGACACTCGAGCCCACATTCCGTCACCTGC  
TCAGAATCATGCAGGTCTCCACTGCTGCCCTTGCTGTCCTCCTCTGCACCATGGCTCTCTGCAACCAGTTCTCTG  
CATCACTTGCTGCTGACACGCCGACCGCCTGCTGCTTCAGCTACACCTCCCGGCAGATTCCACAGAATTTTCATAG  
CTGACTACTTTGAGACGAGCAGCCAGTGCTCCAAGCCCGGTGTCATCTTCCTAACCAAGCGAAGCCGGCAGGTCT  
GTGCTGACCCCAAGTGAGGAGTGGGTCCAGAAATATGTCAGCGACCTAGAGCTGAGTGCCTGAGGGGTCCAGAAGC  
TTCGAGGCCCAGCGACCTCGGTGGGCCAGTGGGGAGGAGCAGGAGCCTGAGCCTTGGGAAACATGCGTGTGACCT  
CCACAGCTACCTCTTCTATGGACTGGTTGTTGCCAAACAGCCACACTGTGGGACTCTTCTTAAGTTAAATTTTAA  
TTTATTTATACTATTTAGTTTTTTGTAATTTATTTTCGATTTACAGTGTGTTTGTGATTGTTTGCTCTGAGAGTT  
CCCCTGTCCCCCTCCCCCTTCCCTCACACCGCGTCTGGTGACAACCGAGTGGCTGTCATCAGCCTGTGTAGGCAGT  
CATGGCACCAAAGCCACCAGACTGACAAATGTGTATCGGATGCTTTTGTTTCAGGGCTGTGATCGGCCTGGGGAAA  
TAATAAAGCACGCTCTTTTAAAAGGT

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**FIGURE 81**

MQVSTAALAVLLCTMALCNQFSASLAADTPTACCF SYTSRQIPQNF IADYFETSSQCSKPGVIFLTKRSRQVCAD  
PSEEWVQKYVSDLELSA

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**FIGURE 82**

TTCCCCCCCCCCCCCCCCCCCCCGCCCGAGCACAGGACACAGCTGGGTTCTGAAGCTTCTGAGTTCTGCAGCCT  
CACCTCTGAGAAAACCTCTTTTCCACCAATACCATGAAGCTCTGCGTGAAGTCTCCTGTCTCTCCTCATGCTAGTA  
GCTGCCTTCTGCTCTCCAGCGCTCTCAGCACCAATGGGCTCAGACCCTCCCACCGCCTGCTGCTTTTCTTACACC  
GCGAGGAAGCTTCCTCGCAACTTTGTGGTAGATTACTATGAGACCAGCAGCCTCTGCTCCCAGCCAGCTGTGGTA  
TTCCAAACCAAAAAGAAGCAAGCAAGTCTGTGCTGATCCCAGTGAATCCTGGGTCCAGGAGTACGTGTATGACCTG  
GAACTGAACTGAGCTGCTCAGAGACAGGAAGTCTTCAGGGAAGGTCACCTGAGCCCGGATGCTTCTCCATGAGAC  
ACATCTCCTCCATACTCAGGACTCCTCTCCGCAGTTCTGTCCCTTCTCTTAATTTAATCTTTTTTATGTGCCGT  
GTTATTGTATTAGGTGTCATTTCATTATTTATATTAGTTTAGCCAAAGGATAAGTGTCTATGGGGATGGTCCA  
CTGTCACTGTTTCTCTGCTGTTGCAAATACATGGATAACACATTTGATTCTGTGTGTTTTCCATAATAAACTTT  
AAAATAAAATGCAGACAGTTA

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**FIGURE 83**

MKLCVTVLSLLMLVAAFCSPALSAPMGSDPPTACCFSYTARKLPRNFVVDYYETSSLCSQPAVVFQTKRSKQVCA  
DPSESWVQEYVYDLELN

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**FIGURE 84**

CCCTGAGCAGAGGGACCTGCACACAGAGACTCCCTCCTGGGCTCCTGGCACCATGGGCCCCACTGAAGATGCTGGC  
CCTGGTCACCCCTCCTCCTGGGGGCTTCTCTGCAGCACATCCACGCAGCTCGAGGGACCAATGTGGGCCGGGAGTG  
CTGCCTGGAGTACTTCAAGGGAGCCATTCCCCTTAGAAAGCTGAAGACGTGGTACCAGACATCTGAGGACTGCTC  
CAGGGATGCCATCGTTTTTTGTAACGTGTCAGGGCAGGGCCATCTGTTTCGGACCCCAACAACAAGAGAGTGAAGAA  
TGCAGTTAAATACCTGCAAAGCCTTGAGAGGTCTTGAAGCCTCCTCACCCCAGACTCCTGACTGTCTCCCGGGAC  
TACCTGGGACCTCCACCGTTGGTGTTCACCGCCCCCACCCTGAGCGCCTGGGTCCAGGGGAGGCCTTCCAGGGAC  
GAAGAAGAGCCACAGTGAGGGAGATCCCATCCCCTTGTCTGAACTGGAGCCATGGGCACAAAGGGCCCAGATTAA  
AGTCTTTATCCTC

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**FIGURE 85**

MAPLKMLALVTLLLGLSLQHIHAARGTNVGRECCLEYFKGAIPLRKLKTWYQTSEDCSRDAIVFVTVQGRAICSD  
PNNKRVKNAV KYLQSLERS

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**FIGURE 86**

ATACAGGACAGAGCATGGCTCGCCTACAGACTGCACTCCTGGTTGTCCTCGTCCTCCTTGCTGTGGCGCTTCAAG  
CAACTGAGGCAGGCCCCCTACGGCGCCAACATGGAAGACAGCGTCTGCTGCCGTGATTACGTCCGTTACCGTCTGC  
CCCTGCGCGTGGTGAAACACTTCTACTGGACCTCAGACTCCTGCCCCGAGGCCTGGCGTGGTGTGCTAACCTTCA  
GGGATAAGGAGATCTGTGCCGATCCCAGAGTGCCCTGGGTGAAGATGATTCTCAATAAGCTGAGCCAATGAAGAG  
CCTACTCTGATGACCGTGGCCTTGGCTCCTCCAGGAAGGCTCAGGAGCCCCACCTCCCTGCCATTATAGCTGCTC  
CCCGCCAGAAGCCTGTGCCAACTCTCTGCATTCCCTGATCTCCATCCCTGTGGCTGTCACCCTTGGTCACCTCCG  
TGCTGTCACTGCCATCTCCCCCCTGACCCCTCTAACCCATCCTCTGCCTCCCTCCCTGCAGTCAGAGGGTCCTGT  
TCCCATCAGCGATTCCCCTGCTTAAACCCTTCCATGACTCCCCACTGCCCTAAGCTGAGGTCAGTCTCCCAAGCC  
TGGCAITGGGCCCTCTGGATCTGGGTTCATCTCTGTCTCCAGCCTGCCCACTTCCCTTCATGAATGTTGGGTTT  
TAGCTCCCTGTTCTCCAAACCCATACTACACATCCCACTTCTGGGTCTTTGCCTGGGATGTTGCTGACACTCAGA  
AAGTCCCACCACCTGCACATGTGTAGCCCCACCAGCCCTCCAAGGCATTGCTCGCCCAAGCAGCTGGTAATTCCA  
TTTCATGTATTAGATGTCCCCTGGCCCTCTGTCCCCTCTTAATAACCCTAGTCACAGTCTCCGCAGATTCTTGGG  
ATTTGGGGGTTTTCTCCCCCACCTCTCCACTA



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**FIGURE 87**

MARLQTALLVVLVLLAVALQATEAGPYGANMEDSVCCRDYVRYRLPLRVVKHFYWTSDSCPRPGVVLLTFRDKEI  
CADPRVPWVKMILNKLSQ

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**FIGURE 88**

GGTTCAGGAACCTGCTGGTTCTGATACATAAATCAGACAGCCTCTGCTGCATGACACGAAGCTTGCTTCTGCCTG  
GCATCTGTGAGCAGCTGCCAGGCTCCGGCCAGGATCCCTTCTTCTCCTCATTGGCTGATGGATCCCAAGGGGCT  
CCTCTCCTTGACCTTCGTGCTGTTTCTCTCCCTGGCTTTTGGGGCAAGCTACGGAACAGGTGGGCGCATGATGAA  
CTGCCCAAAGATTCTCCGGCAGTTGGGAAGCAAAGTGCTGCTGCCCCTGACATATGAAAGGATAAATAAGAGCAT  
GAACAAAAGCATCCACATTGTCTGTCACAATGGCAAATCACTGGAGAACAGTGTGAGAACAAAATAGTGTCTCT  
TGATCCATCCGAAGCAGGCCCTCCACGTTATCTAGGAGATCGCTACAAGTTTTATCTGGAGAATCTCACCTGGG  
GATACGGGAAAAGCAGGAAGGAGGATGAGGGATGGTACCTTATGACCCTGGAGAAAAATGTTTCAGTTCAGCGCTT  
TTGCTGCGAGTTGAGGCTTTATGAGCAGGTCTCCACTCCAGAAATTAAGTTTTAAACAAGACCCAGGAGAACGG  
GACCTGCACCTTGATACTGGGCTGCACAGTGGAGAAGGGGGACCATGTGGCTTACAGCTGGAGTGAAAAGGCGGG  
CACCCACCCACTGAACCCAGCCAACAGCTCCCACCTCCTGTCCCTCACCTCGGCCCCAGCATGCTGACAATAT  
CTACATCTGCACCGTGAGCAACCCTATCAGCAACAATTCCAGACCTTCAGCCCGTGGCCCGGATGCAGGACAGA  
CCCCTCAGAAACAAAACCATGGGCAGTGTATGCTGGGCTGTTAGGGGGTGTTCATCATGATTCTCATCATGGTGGT  
AATACTACAGTTGAGAAGAAGAGGTAAAACGAACATTACCAGACAACAGTGGAAGAAAAAGCCTTACGATCTA  
TGCCCAAGTCCAGAAACCAGTCTCTTCAGAAGAACTTGACTCCTTCCCAGCTCAGGACCCTTGCACCACCAT  
ATATGTTGCTGCCACAGAGCCTGTCCAGAGTCTGTCCAGGAACAAATCCATCACAGTCTATGCTAGTGTGAC  
ACTTCCAGAGAGCTGACACCAGAGACCAACAAAGGGACTTTCTGAAGGAAAATGGAAAAACCAAAATGAACACTG  
AACTTGGCCACAGGCCCAAGTTTCTCTGGCAGACATGCTGCACGTCTGTACCCTTCTCAGATCAACTCCCTGGT  
GATGTTTCTTCCACATACATCTGTGAAATGAACAAGGAAGTGAGGCTTCCCAAGAAATTTAGCTTGCTGTGCAGTG  
GCTGCAGGCGCAGAACAGAGCGTTACTTGATAACAGCGTTCCATCTTTGTGTTGTAGCAGATGAAATGGACAGTA  
ATGTGAGTTCAGACTTTGGGCATCTTGCTCTTGGCTGGAAGTATAATAAAAAATCAGACTGAAAGCCAGGACATC  
TGAGTACCTATCTCACACTGACCACCAGTCACAAAGTCTGGAAAAGTTTACATTTTGGCTATCTTTACTTTGT  
TCTGGGAGCTGATCATGATAACCTGCAGACCTGATCAAGCCTCTGTGCCTCAGTTTCTCTCTCAGGATAAAGAGT  
GAATAGAGGCCGAAGGGTGAATTTCTTATTATACATAAAACACTCTGATATTATTGTATAAAGGAAGCTAAGAAT  
ATTATTTTATTTGCAAAACCCAGAAGCTAAAAAGTCAATAAACAGAAAGAATGATTTTGAGAAA

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**FIGURE 89**

MDPKGLLSLTFVLFLSLAFGASYGTGGRMMNCPKILRQLGSKVLLPLTYERINKSMNKSIHIVVTMAKSLENSVE  
NKIVSLDPSEAGPPRYLGDRYKFYLENLTLGIRESRKEDEGWYLMLEKNVSVQRFCLQLRLYEQVSTPEIKVLN  
KTQENGTC TLILGCTVEKGDHVAYSWSEKAGTHPLNPANSSHLLSLTLGPQHADNIYICTVSNPISNNSQTFSPW  
PGCRTDPSETKPWAVYAGLLGGVIMILIMVVILQLRRRGKTNHYQTTVEKKSLTIYAQVQKPGPLQKKLDSFPAQ  
DPCTTIYVAATEPVPESVQETNSITVYASVTLPE

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**FIGURE 90**

ACGCCCTATACAACCTTGGCTTCACATACTTTTACACTAACCTTTATATGATTTTTAAAACTGGTCTGATCGGACT  
TCTCGTCCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTTTGGGGAGAA  
CCTTAAACCCACTCGAGCAGATAATCTCCGCCCTTGACCGGTGCCACCAAAGAAGGGTTGGAACCATGTGGACTTT  
TCTGGGCAITGCCACTTTACCTATTTTTATAAGAAGTTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCTCT  
GTTGTGCGTGCTGGTGTTCCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTCGCCACCGAAACGGGGGTCTCCT  
CGGGCGCCAGCGGAGCGGCTCCAGTTTCGCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTTCATTGGCTTCTT  
CTGGGCCAAATCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT  
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT  
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG  
AGACTTAAAAGAGCCTGACAGAATAGTTGGAGAATTCCTGCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG  
TCTTGAGATACAGTGAAGGTCTTGATGCCCAGGTTGTAAATGGTTACATGATTTCATGATCAGGAAAGCAAATC  
AGAGGTTTCAGATTCCCTTACCCTCTGTTCAGAAAACAATCAAGTGCAGAGTGAAGAGCTTTCCATCACGGAAGATT  
CATCATGAGTCTCCGGAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT  
AGAGGAAGATGATGTTGTGATGGGAGTTTCAGTACAAGGATAAAGAGACTGGAGATATCAAGGAACCTCCATGCTCC  
ACTGACTGTTGTTGCAGATGGGCTTTTCTCCAAGTTTCAGGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC  
TCATTTTGTGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACCTATTTTAGCTAACCC  
GAGTCCAGTTCTCATCTACCGGATTTTCATCCAGTGAAACTCGAGTACTTGTGACATTAGAGGAGAAATGCCAAG  
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAGC  
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTCCTTCCTCCTTCATCAGTGAAGAAACGAGGTGTTCT  
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA  
ACTATGGAGAAAACTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT  
TTACTGGGCAAGAAAAACATCTCATTCCCTTTGTGCTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTTCTGC  
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACCTGGTGGCGAATGTGTTGCGGG  
TCCTGTTGGGCTGCTTTCTGTATTGTCTCCTAACCCTCTAGCTTTAATTGGACACTTCTTTGCTGTTGCAATCTA  
TGCCGTGTATTTTGTCTTAAAGTCAGAACCTTGGAATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT  
GTACAAAGCGTGTTCTGTAATATTTCTCTAATTTACTCAGAAATGAAGTATATGGTTCATTAAGCTTAAAGGGG  
AACCATTTGTGAATGAATATTTGGAACCTACCAAGTCCTAAGAGACTTTTGAAGAGGATATATATAGCATAGTA  
CCATACCACTTATAAAGTGGAACCTCTTGGAACCAAGATTTGGATTAATTTGTTTTTGAAGTTTTTGTATATAAA  
TATGTAAATACATGCTTTAATTTGCAATTTAAATGAAGGGGTAAATAAGTTAGACATTTGAAAGAAATGATTG  
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTTG  
GGACATGCAAAATAAATGAAGAATGAC

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**FIGURE 91**

MWTF LGIATFTYFYKKFGDFITLANREVLLCVLVF LSLGLVLSYRCRHRNGLLGRQRSGSQFALFSDILSGLPF  
IGFFWAKSPPESENKEQLGARRRRKGTN ISETSLIGTAACTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT  
VIERDLKEPDRI VGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQSGRAFH  
HGRFIMSLRKAAMAEPNAKFIEGVVLQ LLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV  
SVSSHVGVFLMKNAPQFKANHAELILANPSPVLIYRISSETRVLVDIRGEMPRNLREYMVEKIYPQIPDHLKEP  
FLEATDNSHLRSMLASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA  
NKSFYWARKTSHSFVVNILAQALYELFSATDDSLHQLRKACFLYFKLGGE CVAGPVGLLSVLSPNPLALIGHFFA  
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEM KYMVH

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**FIGURE 92**

AGAGGACGCCCGGTGAAGGGCTCCAGCCTGGCAGTTTCTGCGTGTAGCATTCTAGAAATAGAGTGGGTGGGAA  
CTGACCCAAGTAAAGTCCCAGAGACTCGAACACTGACGCACAGGAAAGCCTCAAGTGGGAGGAGAAATGCAAATC  
CCCTACTGATGATGGCGTCAGCGGCTTTCTCCTAGGGACTGTGAGGGGCGCTTCTGACTTTGGACTTGAGCACTG  
CCTGGGACCTGTGCTGAGAGAGCGCTAGCATGTCTCAGTGGAAATCAAGTCCAACAGTTAGAAATCAAGTTTTTGG  
AGCAGGTGGATCAATTCTATGATGACAACCTTTCCCATGGAAATTCGGCATCTGTTGGCCCAATGGATTGAAAATC  
AAGACTGGGAGGCAGCTTCTAACAATGAAACCATGGCAACGATTCTTCTTCAAACTTGTTAATACAACCTGGATG  
AACAGTTAGGTCGTGTTTCCAAAGAGAAAAACCTACTCTTGATACACAATCTAAAAAGAATTAGGAAGGTCCTTC  
AGGGAAAAATTCATGGAAATCCAATGCATGTAGCTGTGGTTATTTCAAACCTGTTTAAGGGAAGAGAGGAGAATAT  
TGGCTGCAGCCAACATGCCTGTCCAGGGGCTCTAGAGAAATCCTTACAAAGTTCTTCAGTTTCAGAAAGACAGA  
GGAATGTGGAGCACAAAGTGGCTGCCATTAAAAACAGTGTGCAGATGACAGAACAAGATACCAAATACTTAGAAG  
ATCTGCAAGACGAATTTGACTACAGGTATAAAACAATTCAGACAATGGATCAGAGTGACAAGAATAGTGCCATGG  
TGAATCAGGAAGTTTTGACACTGCAGGAAATGCTTAACAGCCTCGATTTCAGAGAAAGGAGGCTCTCAGTAAAA  
TGACCCAAATCATCCATGAGACAGACCTGTTAATGAACACCATGCTCATAGAAGAGCTGCAAGACTGGAAGCGGC  
GGCAGCAAATCGCCTGCATCGGGGGTCCACTCCACAATGGGCTCGACCAGCTTCAGAACTGCTTTACACTATTGG  
CAGAAAGTCTTTTCCAACCTGAGAAGGCAATTGGAGAACTAGAGGAGCAATCTACCAAATGACATATGAAGGTG  
ATCCCATTTCCAATGCAAAGAACTCACATGCTAGAAAGAGTCACCTTCTTGATCTACAACCTTTTCAAGAACTCAT  
TTGTGGTTGAGCGACAGCCATGTATGCCAACCCACCCTCAGAGGCCGTTGGTACTTAAAACCCTAATTCAGTTCA  
CTGTAAACTAAGGCTACTAATAAAATTGCCAGAACTAACTATCAGGTAAAGGTTAAGGCATCAATTGACAAGA  
ATGTTTCAACTCTAAGCAACCGAAGATTTGTACTTTGTGGAACATAATGTCAAAGCCATGTCTATTGAAGAATCTT  
CCAATGGGAGTCTCTCAGTAGAATTTGACATTTGCAACCAAAGGAAATGAAGTCCAGTGCTGGAGGTAAAGGAA  
ATGAGGGCTGTACATGGTGACTGAAGAACTTCATTCCATAACGTTTGAAACACAGATCTGCCTCTATGGCCTGA  
CCATAGATTTGGAGACCAGCTCATTGCCTGTGGTGATGATTTCCAATGTCAGTCAGTTACCTAATGCTTGGGCAT  
CCATCATTGTTGATACAACGTGTCAACCAACGATTCCCAGAACTTGGTTTTCTTTAATAATCCTCCACCTGCCACAT  
TGAGTCAACTACTGGAGGTGATGAGCTGGCAGTTTTCATCGTACGTTGGTCTGTTTAACTCAGATCAACTCC  
ATATGCTGGCAGAGAAGCTTACAGTCCAATCTAGCTACAGTGATGGTCACCTCACCTGGGCCAAGTTCTGCAAGG  
AACATTTACCTGGTAAATCATTTACCTTTTGGACATGGCTTGAAGCAATATTGGATCTAATTAAGAAACACATTC  
TTCCCCTTTGGATTGATGGGTATGTATGGGCTTTGTTAGCAAAGAGAAGGAACGGCTGTTGCTAAAGGATAAAA  
TGCTTGGCACCTTTTTATTAAAGATTAGTGAAAGCCATCTCGGAGGAATAACTTTACCTGGGTGGACCATTCTG  
AAAGTGGGGAAGTGAGATTCCACTCTGTAGAACCCTACAATAAAGGCCGTTGTCTGCTCTGCCATTGCTGACA  
TCCTGCGAGACTACAAAGTTATTATGGCTGAAAACATTCTGAAAACCTCTGAAGTACCTATATCCTGACATTC  
CCAAAGACAAAGCCTTCGGTAAACACTACAGCTCTCAGCCTTGCGAAGTTTCAAGACCAACAGAAAGGGGTGACA  
AAGGTTATGTTCTTCTGTTTTTATCCCCATCTCAACAATCCGAAGTGATTCAACAGAGCCACATTCTCCATCAG  
ACCTTCTTCCCATGTCTCCAAGTGTGTATGCGGTGTTGAGAGAAAACCTGAGTCCCACAACAATTGAAACTGCAA  
TGAAGTCTCCTTATTCTGCTGAATGACAGGATAAACTCTGACGCACCAAGAAAGGAAGCAAATGAAAAAGTTTAA  
AGACTGTTCTTTGCCAATAACCACATTTTATTTCTTCAGCTTTGTAAATACCAGGTTCTAGGAAATGTTTGACA  
TCTGAAGCTCTCTTCACTCCCGTGGCACTCCTCAATTGGGAGTGTTGTGACTGAAATGCTTGAAACCAAAGCT  
TCAGATAAACTTGCAAGATAAGACAACCTTTAAGAAACCAGTGTTAATAACAATATTAACAG

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**FIGURE 93**

MSQWNQVQQLEIKFLEQVDQFYDDNFPMEIRHLLAQWIENQDWEAASNNETMATILLQNLLIQLDEQLGRVSKEK  
NLLLIHNLKRIRKVLQGKFHGNPMHVAVVISNCLREERRILAAANMPVQGPLEKSLQSSSVSERQRNVEHKVAAI  
KNSVQMTEQDTKYLEDLQDEFDORYKTIQTMDQSDKNSAMVNQEVLTQEMLSLDFKRKEALSKMTQIIHETDL  
LMNTMLIEELQDWKRRQIACIGGPLHNGLDQLQNCFTLLAESLFQLRRQLEKLEEQSTKMTYEGDPIPMQORTHM  
LERVTFLIYNLFKNSFVVERQPCMPHTPQRPLVLKTLIQFTVKLRLLIKLPELNYQVKVKASIDKNVSTLSNRRF  
VLCGTNVKAMSIEESSNGSLSEFRHLQPKEMKSSAGGKGNEGCHMVTEELHSITFETQICLYGLTIDLETSSLP  
VVMISNVSQLPNAWASIIWYNVSTNDSQNLVFFNNPPPATLSQLLEVMSWQFSSYVGRGLNSDQLHMLAEKLTVO  
SSYSDGHLTWAKFCKEHLPGKSFTFTWTWLEAILDLIKHHILPLWIDGYVMGFVSKEKERLLLKDKMPGTFLLRFS  
ESHLGGITFTWVDHSESGEVRFHSVEPYNKGRLSALPFADILRDYKVIMAENIPENPLKYLYPDIPKDKAFGKHY  
SSQPCEVSRPTERGDKGYVPSVFIPISTIRSDSTEPHSPDLLPMSPSVYAVLRENLSPTTIETAMKSPYSAE

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FIGURE 94A

CAAATGCGAACTTAGGCTGTTACACAACCTGCTGGGGTCTGTTCTCGCCGCCCGCCCGGCAGTCAGGCAGCGTCGC  
CGCCGTGGTAGCAGCCTCAGCCGTTTTCTGGAGTCTCGGGCCACAGTCACCGCCGCTTACCTGCGCCTCCTCGAG  
CCTCCGGAGTCCCCGTCCGCCCGCACAGGCCGTTTCGCCGTCTGCGTCTCCCCACGCCGCTCGCCTGCCGCCG  
CGCTCGTCCCTCCGGGCCGACATGAGTGGGGACCACCTCCACAACGATTCCCAGATCGAAGCGGATTTCCGATTG  
AATGATTCTCATAAACACAAAGATAAACACAAAGATCGAGAACACCGGCACAAAGAACACAAGAGGAGAAGGAC  
CGGGAAAAGTCCAAGCATAGCAACAGTGAACATAAAGATTCTGAAAAGAAACACAAAGAGAAGGAGAAGACCAA  
CACAAAGATGGAAGCTCAGAAAAGCATAAAGACAAACATAAAGACAGAGACAAGGAAAAACGAAAAGAGGAAAAAG  
GTTTCGAGCCTCTGGGGATGCAAAAAATAAGAAGGAGAAGGAAAAATGGCTTCTCTAGTCCACCACAAATTAAGAT  
GAACCTGAAGATGATGGCTATTTTGTTCCTCTAAAGAGGATATAAAGCCATTAAAGAGACCTCGAGATGAGGAT  
GATGCTGATTATAAACCTAAGAAAAATTAACAGAGATACCAAGAAGGAGAAGAAAAAGAACTAGAAGAAGAA  
GAGGATGGTAAATTGAAAAACCCAAGATAAAGATAAAGATAAAAAAGTTTCTGAGCCAGATAACAAGAAAAAG  
AAGCCGAAGAAAGAAGAGGAACAGAAAGTGGAATGGTGGGAAGAAGAGCGCTATCCTGAAGGCATCAAGTGGAAA  
TTCTTAGAACATAAAGGTCCAGTATTTGCCCCACCATATGAGCCTCTTCCAGAGAATGTCAAGTTTTATTATGAT  
GGTAAAGTCATGAAGCTGAGCCCCAAAGCAGAGGAAGTAGCTACGTTCTTTGCAAAAAATGCTCGACCATGAATAT  
ACTACCAAGGAAATATTTAGGAAAAATTTCTTTAAAGACTGGAGAAAGGAAATGACTAATGAAGAGAAGAATATT  
ATCACCAACCTAAGCAAAATGTGATTTTACCCAGATGAGCCAGTATTTCAAAGCCCAGACGGAAGCTCGGAAACAG  
ATGAGCAAGGAAGAGAACTGAAAAATCAAGAGGAGAATGAAAAATTACTGAAAGAATATGGATTCTGTATTATG  
GATAACCACAAAGAGAGGATTGCTAACTTCAAGATAGAGCCTCTTGACTTTTCCGTGGCCGCGGCAACCACCCC  
AAGATGGGCATGCTGAAGAGACGAATCATGCCCGAGGATATAATCATCAACTGTAGCAAAGATGCCAAGGTTTCT  
TCTCTCTCTCCAGGACATAAGTGGAAGAAGTCCGGCATGATAACAAGGTTACTTGGCTGGTTTCTTGACAGAG  
AACATCCAAGGTTCCATTAAATACATCATGCTTAACCCTAGTTTACGAATCAAGGGTGAGAAGGACTGGCAGAAA  
TACGAGACTGCTCGGCCGGCTGAAAAATGTGTGGACAAGATCCGGAACCAGTATCGAGAAGACTGGAAGTCCAAA  
GAGATGAAAGTCCGGCAGAGAGCTGTAGCCCTGTACTTTCATCGACAAGCTTGCTCTGAGAGCAGGCAATGAAAAG  
GAGGAAGGAGAAACAGCGGACACTGTGGGCTGCTGCTCACTTCGTGTGGAGCACATCAATCTACACCCAGAGTTG  
GATGGTCAGGAATATGTGGTAGAGTTTGACTTCTCGGGAAGGACTCCATCAGATACTATAACAAGGTCCCTGTT  
GAGAAACGAGTTTTTAAGAACCTACAACCTATTTATGGAGAACAAGCAGCCCGAGGATGATCTTTTTGATAGACTC  
AATACCTGGTATTCTGAATAAGCATCTTCAGGATCTCATGGAGGGCTTGACAGCCAAGGTATTCCGTACATACAAT  
GCCTCCATCACGCTACAGCAGCAGCTAAAAGAACTGACAGCCCCGGATGAGAACATCCAGCGAAGATCCTTTCT  
TATAACCGTGCCAATCGAGCTGTTGCAATTCTTTGTAACCATCAGAGGGCACCAACAAAACTTTTGAGAAGTCT  
ATGATGAACCTTGCAAACTAAGATTGATGCCAAGAAGGAACAGCTAGCAGATGCCCGGAGAGACCTGAAAAGTGCT  
AAGGCTGATGCCAAGGTCATGAAGGATGCAAGACGAAGAAGGTAGTAGAGTCAAAGAAGAAGGCTGTTTCAGAGA  
CTGGAGGAACAGTTGATGAAGCTGGAAGTTCAAGCCACAGACCGAGAGGAAAAATAACAGATTGCCCTGGGAACC  
TCCAAACTCAATTATCTGGACCTAGGATCACAGTGGCTTGGTGCAAGAAGTGGGGTGTTCCCAATTGAGAAGATT  
TACAACAAAACCCAGCGGGAGAAGTTTGCTGGGCCATTGACATGGCTGATGAAGACTATGAGTTTTAGCCAGTC  
TCAAGAGGCAGAGTTCTGTGAAGAGGAACAGTGTGGTTTGGGAAAGATGGATAAACTGAGCCTCACTTGCCCTCG  
TGCCTGGGGGAGAGAGGCAGCAAGTCTTAACAAACCAACATCTTTGCGAAAAGATAAACTGGAGATATTATAAG  
GGAGAGCTGAGCCAGTTGCTCTATGGACAACCTATTTAAAAATATTTTCAAGATATCAAAATTTCTAGCTGTATGATT  
TGTTTTGAATTTTGTTTTTATTTTCAAGAGGGCAAGTGGATGGGAATTTGTCAGCGTTCTACCAGGCAAATTCAC  
TGTTTCACTGAAATGTTTGGATTCTCTTAGCTACTGTATGCAAGTCCGATTATATTGGTGCGTTTTTACAGTTA  
GGGTTTTGCAATAACTTCTATATTTAATAGAAATAAATTCCTAAACTCCCTTCCCTCTCTCCCATTTTCAAGGAAT  
TTAAATTAAGTAGAACAAAAAACCCAGCGCACCTGTTAGAGTCGTCACCTCTCTATTGTTCATGGGGATCAATTTT  
CATTAACTTGAAGCAGTCGTGGCTTTGGCAGTGTTTTGGTTTCAGACACCTGTTTACAGAAAAAGCATGATGGGA  
AAATATTTCTGACTTGAGTGTTCCTTTTTAAATGTGAATTTTTATTCTTTTTTAATTATTTTAAAAATTTTAAA  
CCTTTTTCTTGATCTTAAAGATCGTGTAGATTGGGGTTGGGGAGGGATGAAGGGCGAGTGAATCTAAGGATAATG  
AAATAATCAGTGAAGTGAACCATTTTCCCATCATCCTTTGTTCTGAGCATTGCTGTACCCTTTAAGATATCCAT  
CTTTTTCTTTTTAACCCTAATCTTTCACTTGAAAGATTTTTATTGTATAAAAAGTTTCACAGGTCAATAAACTTAG  
AGGAAAATGAGTATTTGGTCCAAAAAAGGAAAAATAATCAAGATTTTAGGGCTTTTATTTTTCTTTTGTAATT  
GTGTAATAAATGGAAAAAACATAAAAAGCAGAATTTTAATGTGAAGACATTTTTTGCTATAATCATTAGTTTTA



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**FIGURE 94B**

GAGGCATTGTTAGTTTAGTGTGTGTGCAGAGTCCATTTCCCACATCTTCCTCAAGTATCTTCTATTTTTATCAT  
GAATCCCTTTTAATCAACTGTAGGTTATTTAAAAATAAATTCCTACAACCTAATGGAAA

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**FIGURE 95**

MSGDHLHND SQIEAD FRLNDSHKKHDKHKDREHRHKEHKKEKDREKSKHSNSEHKDSEKKHKEKEKTKHKDGSSE  
KHKDKHKDRDKEKRKEEKVRASGDAKIKKEKENGFSPPQIKDEPEDDGYFVPPKEDIKPLKRPRDEDDADYKPK  
KIKTEDTKKEKKRKLEEEEDGKLKKPKNKDKDKKVPEDNKKKKPKKEEQKWKWWEERYPEGIKWKFLCHKGP  
VFAPPYEPLPENVKFYDYGKVMKLSPKAEVATFFAKMLDHEYTTKEIFRKNFFKDWRKEMTNEEKNIITNLSKC  
DFTQMSQYFKAQTEARKQMSKEEKLKIKEENEKLLKEYGFCIMDNHKERIANFKIEPPGLFRGRGNHPKMGMLKR  
RIMPEDI I INCSKDAKVPSPPPGHKKWEVRHDNKVTWLVSWTENIQGSIKYIMLNPSSRIKGEKDWQKYETARRL  
KKCVDKIRNQYREDWKSKEKVRQRAVALYFIDKLALRAGNEKEEGETADTVGCCSLRVEHINLHPELDGQEYVV  
EFDLGLKDSIRYYNKVPVEKRVFKNLQLFMENKQPEDDLFDRLNTGILNKLQDLMEGLTAKVFRTYNASITLQQ  
QLKELTAPDENIPAKILSYNRRANRAVA ILCNHQRAPPKTFEKSMMNLQTKIDAKKEQLADARRDLKSAKADAKVM  
KDAKTKKVESKKKAVQRLEEQLMKLEVQATDREENKQIALGTSKLNLYDPRI TVAWCKKWGVPIEKIYNKTQRE  
KFAWAIDMADEYEF

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**FIGURE 96**

GAATTCGCTTTGGATCCATTTCCATCGGTCCTTACAGCCGCTCGTCAGACTCCAGCAGCCAAGATGGTGAAGCAG  
ATCGAGAGCAAGAÇTGCTTTTCAGGAAGCCTTGGACGCTGCAGGTGATAAACTTGTAGTAGTTGACTTCTCAGCC  
ACGTGGTGTGGGCCCTTGCAAAATGATCAACCCTTTCTTTCATTCCCTCTCTGAAAAGTATTCCAACGTGATATTC  
CTTGAAGTAGATGTGGATGACTGTCAGGATGTTTGCTTCAGAGTGTGAAGTCAAATGCACGCCAACATTCCAGTTT  
TTTAAGAAGGGACAAAAGGTGGGTGAATTTTCTGGAGCCAATAAGGAAAAGCTTGAAGCCACCATTGAATTA  
GTCTTAATATGTTTTCTGAAAACATAACCAGCCATTGGCTATTTAAACTTGTATTTTTTTATTTACAAAATATAA  
ATATGAAGACATAACCAGTTGCCATCTGCGTGACAATAAACATTATGCTAA

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**FIGURE 97**

MVKQIESKTAFQEALDAAGDKLVVDFSATWCGPCKMINPFFHSLSEKYSNVIFLEVDVDDCQDVASECEVKCTP  
TFQFFKKGQKVGEFSGANKEKLEATINELV

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**FIGURE 98**

GCCGCTCGCTCGGCTCCGCTCCCTGGCTCGGCTCCCTGCCTCCGCGTCGCAGCCCCGCGTAGCCGCCTCCGAG  
CCCGCCGCCACATCCTCTGAGAAGATGGCTGTGCCACCCACGTATGCCGATCTTGGCAAATCTGCCAGGGATGTC  
TTCACCAAGGGCTATGGATTTGGCTTAATAAAGCTTGATTTGAAAACAAAATCTGAGAATGGATTGGAATTTACA  
AGCTCAGGCTCAGCCAACACTGAGACCACCAAAGTGACGGGCAGTCTGGAAACCAAGTACAGATGGACTGAGTAC  
GGCCTGACGTTTACAGAGAAAATGGAATACCGACAATACACTAGGCACCGAGATTACTGTGGAAGATCAGCTTGCA  
CGTGGACTGAAGCTGACCTTCGATTATCCTTCTCACCTAACACTGGGAAAAAAAAATGCTAAAATCAAGACAGGG  
TACAAGCGGGAGCACATTAACTTGGGCTGCGACATGGATTTTCGACATTGCTGGGCCCTTCCATCCGGGGTGCTCTG  
GTGCTAGGTTACGAGGGCTGGCTGGCCGGCTACCAGATGAATTTTGAGACTGCAAAATCCCGAGTGACCCAGAGC  
AACTTTGCAGTTGGCTACAAGACTGATGAATTCCAGCTTCACACTAATGTGAATGACGGGACAGAGTTTGGCGGC  
TCCATTTACCAGAAAGTGAACAAGAAGTTGGAGACCGCTGTCAATCTTGCCTGGACAGCAGGAAACAGTAACACG  
CGCTTCGGAATAGCAGCCAAGTATCAGATTGACCTTGACGCTGCTTCTCGGCTAAAGTGAACAACTCCAGCCTG  
ATAGGTTTAGGATACACTCAGACTCTAAAGCCAGGTATTAACTGACACTGTCAGCTCTTCTGGATGGCAAGAAC  
GTCAATGCTGGTGGCCACAAGCTTGGTCTAGGACTGGAATTTCAAGCATAAATGAATACTGTACAATTGTTTAAT  
TTTAACTATTTTGCAGCATAGCTACCTTCAGAATTTAGTGTATCTTTTAATGTTGTATGCTGGGATGCAAGTA  
TTGCTAAATATGTTAGCCCTCCAGGTTAAAGTTGATTACAGCTTTAAGATGTTACCCTTCCAGAGGTACAGAAGAA  
ACCTATTTCCAAAAAAGGTCCTTTCAGTGGTAGACTCGGGGAGAACTTGGTGGCCCCCTTTGAGATGCCAGGTTTC  
TTTTTTATCTAGAAATGGCTGCAAGTGGAAGCGGATAATATGTAGGCACCTTGTAAATTCATATTGAGTAAATGA  
ATGAAATTGTGATTTCTTGAGAATCGAACCTTGGTTCCTTAACCCTAATTGATGAGAGGCTCGCTGCTTGATGGT  
GTGTACAACTCACCTGAATGGGACTTTTTTAGACAGATCTTCATGACCTGTTCCCACCCAGTTCATCATCATC  
TCTTTTACACCAAAGGTCTGCAGGGTGTGGTAACGTGTTCTTTTGTGCCATTTTGGGGTGGAGAAGGTGGATGT  
GATGAAGCCAATAATTCAGGACTTATTCCTTCTTGTTGTGTTTTTTTTTGGCCCTTGCACCAGAGTATGAAAT  
AGCTTCCAGGAGCTCCAGCTATAAGCTTGGAAGTGTCTGTGTGATTGTAATCACATGGTGACAACACTCAGAATC  
TAAATTGGACTTCTGTTGTATTCTCACCCTCAATTTGTTTTTTAGCAGTTTAATGGGTACATTTTAGAGTCTTC  
CATTTTGTGGAATTAGATCCTCCCCTTCAAATGCTGTAATTAACAACACTTAAAAAACTTGAATAAAATATTGA  
AACCTC

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**FIGURE 99**

MAVPPTYADLGKSARDVFTKGYGFGLIKLDLKTSENGLEFTSSGSANTETTKVTGSLETKYRWTEYGLTFTEKW  
NTDNTLGTEITVEDQLARGLKLTFDSSFSPNTGKKNAIKTGYKREHINLGCDMDFDIAGPSIRGALVLGYEGWL  
AGYQMNFE TAKSRVTQSNFAVG YKTDEFQLHTNVNDGTEFGGSIIYQV NKKLETAVNLA WTAGNSNTRFGIAAKY  
QIDPDACFS AKVNNSSLI GLGYTQTLKPGIKLTLSALLDGKNVNAGGHKLGLGLEFQA

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**FIGURE 100**

GCTCACTGAGCACCGTCCCAGCATCCGGACACCACAGCGGCCCTTCGCTCCACGCAGAAAACCACACTTCTCATA  
CCTTCACTCAACACTTCCTTCCCCAAAGCCAGAAGATCCACAAGGAGGAACATGAGGTGGCTGTGCTGGGGGCAC  
CCCCCAGCACCATCCTTCCAAGGTCCACCGTGATTAACATCCACAGCGAGACCTCCGTGCCCCGACCATGTCGTCT  
GGTCCCTGTTCAACACCCTCTTCTTGAAGTGGTGCTGTCTGGGCTTCATAGCATTTCGCCTACTCCGTAAAGTCTA  
GGGACAGGAAGATGGTTGGCGACGTGACCGGGGCCCAGGCCTATGCCTCCACCGCCAAGTGCCTGAACATCTGGG  
CCCTGATTCTGGGCATCCTCATGACCATTGGATTTCATCCTGTTACTGGTATTTCGGCTCTGTAACAGTCTACCATA  
TTATGTTACAGATAATACAGGAAAAACGGGGTTACTAGTAGCCGCCCATAGCCTGCAACCTTTGCACTCCACTGT  
GCAATGCTGGCCCTGCACGCTGGGGCTGTTGCCCCTGCCCCCTTGGTCCTGCCCTAGATACAGCAGTTTATACC  
CACACACCTGTCTACAGTGTCAATCAATAAAGTGCACGTGCTTGTGA

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**FIGURE 101**

MHKEEHEVAVLGAPPSTILPRSTVINIHSETSVDPDHVVWSLFNTLFLNWCCLGFI AFAYSVKSRDRKMVGDTVGA  
QAYASTAKCLNIWALILGILMTIGFILLVFGSVTVYHIMLQIIQEKG Y



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**FIGURE 102**

[illegible]

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**FIGURE 103**

MERIPSAQPPFACLPKAPGLEHGDLPGMYPAHMYQVYKSRRGIKRSEDSKETYKLPHRLIEKKRRDRINECIAQL  
KDLLPEHLKLTTLGHLEKAVVLELTLKHVKALTNLIDQQQKI IALQSGLQAGELSGRNVETGQEMFCSGFQTCA  
REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKKEPSSPAKGSEGPKNCPVPIQR  
TFAHSSGEQSGSDTDTDSGYGGESEKGDLRSEQPCFKSDHGRRFTMGERIGA IKQESEEPPTKKNRMQLSDDEGH  
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKWCWYPTSVPVLYPGLNASAAALSSFMNPDKISAPL  
LMPQRLPSPLPAHPSVDSSVLLQALKPIPLNLETKD

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**FIGURE 104**

GGCAGCTGCACGGCTCCTGGCCCCGGAGCATGCGCGAGAGCCGCCCGGAGCGCCCCGGAGCCCCCGCCGTCCC  
GCCCCGCGGCGTCCCGCGCCCCGCGCCAGCGCACCCCGGACGCTATGGCCACCCCTCCGGCTGGCCCCCTTCTG  
TAGGATGGTAGCACACAACCAGGTGGCAGCCGACAATGCAGTCTCCACAGCAGCAGAGCCCCGACGGCGGCCAGA  
ACCTTCCTCCTCTTCTCCTCCTCGCCCCGCGGCCCCCGCGCGCCCCGCGGCCGTGCCCCGCGGTCCCGGCCCGGC  
CCCCGGCGACACGCACATTCCGCACATTCCGTTTCGCACGCCGATTACCGGCGCATCACGCGCGCCAGCGCGCTCCT  
GGACGCCTGCGGATTCTACTGGGGGCCCCCTGAGCGTGCACGGGGCGCACGAGCGGCTGCGCGCCGAGCCCGTGGG  
CACCTTCCTGGTGCAGCAGCCGCCAGCGGAAGTCTTTTTCGCCCTTAGCGTGAAGATGGCCTCGGGACCCAC  
GAGCATCCGCGTGCACTTTCAGGCCGGCCGCTTTCACCTGGATGGCAGCCGCGAGAGCTTCGACTGCCTCTTCGA  
GCTGCTGGAGCACTACGTGGCGGCGCCGCGCCGCA TGCTGGGGGCCCCGCTGCGCCAGCGCCGCGTGCGGCCGCT  
GCAGGAGCTGTGCCGCCAGCGCATCGTGGCCACCGTGGGCCGCGAGAACCTGGCTCGCATCCCCCTCAACCCCGT  
CCTCCGCGACTACCTGAGCTCCTTCCCCCTTCCAGATTTGACCGGCAGCGCCCCGCGTGCACGCAGCATTAACTGG  
GATGCCGTGTTATTTTGTATTACTTGCCTGGAACCATGTGGGTACCCTCCCCGGCCTGGGTGGAGGGAGCGGA  
TGGGTGTAGGGGCGAGGCGCCTCCCGCCCTCGGCTGGAGACGAGGCCGAGACCCCTTCTCACCTCTTGAGGGGG  
TCCTCCCCCTCCTGGTGCTCCCTCTGGGTCCCCCTGGTTGTTGTAGCAGCTTAACTGTATCTGGAGCCAGGACCT  
GAACTCGCACCTCCTACCTCTTCATGTTTACATATACCCAGTATCTTTGCACAAACCAGGGGTTGGGGGAGGGTC  
TCTGGCTTTATTTTTCTGCTGTGCAGAATCCTATTTTATATTTTTTAAAGTCAGTTTAGGTAATAAACTTTATTA  
TGAAAGTTTTTTTTTT

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**FIGURE 105**

MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSSPAAPARPRPCPAVPAPAPGDTHFRTFRSHADYRRITRASALLD  
ACGFYWGPLSVHGAHERLRAEPVGTFLVRDSRQRNCFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFEL  
LEHYVAAPRRMLGAPLRQRRVRPLQELCRQRIVATVGRENLARIPLNPVLRDYLSSFPFQI

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**FIGURE 106**

CCTTCATACCGGCCCTTCCCCTCGGCTTTGCCTGGACAGCTCCTGCCTCCCGCAGGGCCACCTGTGTCCCCAG  
CGCCGCTCCACCCAGCAGGCCTGAGCCCCTCTCTGCTGCCAGACACCCCTGCTGCCCCTCTCTCTGCTGCTCGG  
GTTCTGAGGCACAGCTTGTACACCGAGGCGGATTCTCTTTCTCTTTCTCTTCTGGCCACAGCCGCAGCAATGG  
CGCTGAGTTCTCTGCTGGAGTTTCCTGCTAGCTGGGTTCCCAGCTGCCGGTCTGAGCCTGAGGCATGGAGC  
CTCCTGGAGACTGGGGGCTCCTCCCCTGGAGATCCACCCCAAGAACCGACGTCTTGAGGCTGGTGTGTATCTCA  
CCTTCCTGGGAGCCCCCTGCTACGCCCCAGCTCTGCCGTCTGCAAGGAGGACGAGTACCCAGTGGGCTCCGAGT  
GCTGCCCCAAGTGCAGTCCAGGTTATCGTGTGAAGGAGGCCTGCCGGGAGCTGACGGGCACAGTGTGTGAACCCT  
GCCCTCCAGGCACCTACATTGCCACCTCAATGGCCTAAGCAAGTGTCTGCAGTGCCAAATGTGTGACCCAGCCA  
TGGGCCTGCGCGCGAGCCGGAACCTGCTCCAGGACAGAGAACGCCGTGTGTGGCTGCAGCCCAGGCCACTTCTGCA  
TCGTCCAGGACGGGGACCACTGCGCCGCGTGCCGCGCTTACGCCACCTCCAGCCCGGGCCAGAGGGTGCAGAAGG  
GAGGCACCGAGAGTCAGGACACCCTGTGTGAGAATGCCCCCGGGGACCTTCTCTCCCAATGGGACCCTGGAGG  
AATGTCAGCACCAAGTGCAGCTGGCTGGTGAAGGCCGAGCTGGGACCAGCAGCTCCCACTGGGTAT  
GGTGGTTTCTCTCAGGGAGCCTCGTCATCGTCATTGTTTGTCTCCACAGTTGGCCTAATCATATGTGTGAAAAGAA  
GAAAGCCAAGGGGTGATGTAGTCAAGGTGATCGTCTCCGTCCAGCGGAAAAGACAGGAGGCAGAAGGTGAGGCCA  
CAGTCATTGAGGCCCTGCAGGCCCTCCGGACGTACACCGGTGGCCGTGGAGGAGACAATACCCTCATTACGG  
GGAGGAGCCCAAACCACTGACCACAGACTCTGCACCCGACGCCAGAGATACCTGGAGCGACGGCTGCTGAAAG  
AGGCTGTCCACCTGGCGAAACCACCGGAGCCCGGAGGCTTGGGGGCTCCGCCCTGGGCTGGCTTCCGTCTCCTCC  
AGTGGAGGGAGAGGTGGGGCCCCTGCTGGGGTAGAGCTGGGGACGCCACGTGCCATTCCCATGGGCCAGTGAGGG  
CCTGGGGCCTCTGTTCTGCTGTGGCCTGAGCTCCCCAGAGTCTCTGAGGAGGAGCGCCAGTTGCCCCTCGCTCACA  
GACCACACACCCAGCCCTCCTGGGGCAGCCAGAGGGCCCTTCAGACCCAGCTGTCTGCGCGTCTGACTCTTGT  
GGCCTCAGCAGGACAGGCCCCGGGCACTGCCTCACAGCCAAGGCTGGACTGGGTGGCTGCAGTGTGGTGTTTAG  
TGGATACCACATCGGAAGTGATTTTCTAAATTGGAATTTGAATTCGGTCTGTCTTCTATTTGTCATGAAACAGT  
GTATTTGGGGAGATGCTGTGGGAGGATGTAAATATCTTGTTTCTCCTCAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 107**

MEPPGDWGPPPWSTPRTDVLRRLVLYLTFLGAPCYAPALPSCKEDEYPVGSECCPKCSPGYRVKEACGELTGTV  
EPCPPGTYYIAHLNGLSKCLQCQMCDPAMGLRASRNC SRTE NAVCGCSPGHFCIVQDGDHCAACRAYATSSPGQRV  
QKGGTESQDTLCQNCPPGTFSPNGTLEECQHQT KCSWLVT KAGAGTSSSHVWWFLSGSLVIVIVCSTVGLIICV  
KRRKPRGDVVKVIVSVQRKRQEAEGEATVIEALQAPPDVTTVAVEETIPSFTGRSPNH

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**FIGURE 108**

CCACGCGTCCGTGCTTTTCCACAGAAGGTTAGACCCTGAAAGAGATGGCTCAGCACCACCTATGGATCTTGCTCC  
TTTGCCTGCAAACCTGGCCGGAAGCAGCTGGAAAAGACTCAGAAATCTTCACAGTGAATGGGATTCTGGGAGAGT  
CAGTCACTTTCCCTGTAAATATCCAAGAACCACGGCAAGTTAAAATCATTGCTTGGACTTCTAAAACATCTGTTG  
CTTATGTAACACCAGGAGACTCAGAAACAGCACCCGTAGTTACTGTGACCCACAGAAATTATTATGAACGGATAC  
ATGCCCTTAGGTCCGAACCTACAATCTGGTCATTAGCGATCTGAGGATGGAAGACGCAGGAGACTACAAAGCAGACA  
TAAATACACAGGCTGATCCCTACACCACCACCAAGCGCTACAACCTGCAAATCTATCGTCGGCTTGGGAAACCAA  
AAATTACACAGAGTTTAATGGCATCTGTGAACAGCACCTGTAATGTCACACTGACATGCTCTGTAGAGAAAGAAG  
AAAAGAATGTGACATACAATTGGAGTCCCCTGGGAGAAGAGGGTAATGTCTTCAAATCTTCCAGACTCCTGAGG  
ACCAAGAGCTGACTTACACGTGTACAGCCCAGAACCCTGTCAGCAACAATTCTGACTCCATCTCTGCCCGGCAGC  
TCTGTGCAGACATCGCAATGGGCTTCCGTACTCACCACACCGGGTTGCTGAGCGTGCTGGCTATGTTCTTTCTGC  
TTGTTCTCATTCTGTCTTCAGTGTTTTTGTTCCTTTGTTCAAGAGAAGACAAGATGCTGCCTCAAAGAAAACCA  
TATACACATATATCATGGCTTCAAGGAACACCCAGCCAGCAGAGTCCAGAAATCTATGATGAAATCCTGCAGTCCA  
AGGTGCTTCCCTCCAAGGAAGAGCCAGTGAACACAGTTTATTCGGAAGTGCAGTTTGCTGATAAGATGGGGAAG  
CCAGCACACAGGACAGTAAACCTCCTGGGACTTCAAGCTATGAAATTGTGATCTAGGCTGCTGGGCTGAATTCTC  
CCTCTGGAACTGAGTTACAACCACCAATACTGGCAGGTTCCCTGGATCCAGATCTTCTCTGCCAACTCTTACT  
GGGAGATTGCAAACCTGCCACATCTCAGCCTGTAAGCAAAGCAGGAAACCTTCTGCTGGGCATAGCTTGTGCCTAA  
ATGGACAAATGGATGCATACCCTTCTGAAATGACTCCCTTCTGAATGAATGACAAAGCAGGTTACCTAGTATAG  
TTTTCCCAAACCTTCTTCCCATCATAGCACATGTAGAAAATAATATTTTTATGGCACACTGGGATAAACAAGCAAG  
ATTGCTCACTTCTGGAAGCTGCATATGACTAGAGGCCTCTTGTGACTGGAGGTAACAACCCTGCCAGTAACGT  
GGGAGAAGGGGATCAATATTTTGCACACCTGTAATAGGCCATGGCACACCAGCCAAGATGCTCTGCTCACAGTCA  
GTATGTGTGAAGATCCCTGGTGGCTGGCCTTACCACGCATCTTGAGCAAAATTAGGAAAATGTACCCTTCGCTTG  
AGGCAGATGCAGCCCTTCCCCGAGTGCATGGCTTGGAGAGCAGAATGTGGGCTGCATATAAGCACACTCATCCC  
TTTGTCTGGGAATCTTTGTGCAGGGCATAACAGGCTTAGTAAGTCCAAACACAGATGACAGTGCTGTGTGGGTCT  
CTGTCAGAGTTGTGGCTCTCAGCCATGTAGACACACTCTCCAAATGGAGTGTTGGAAAATGTTCTTTCTGCAGGG  
TCTAGAGACTGCTGGGACACTTTTCTTGGAGTGCTACTTCAGAAGCCTTATAGGATTTTCTTTCTGGCCAAGATT  
TCCTTCTGTATCACTCCAAGCAGCCTCAGCAGAAGAAGCAGCCATGCCAGTATTCCCACTCTCCAAAAGGAACCT  
GACCAGCTTATATTTCTCACACTTCTGGGGAACCTGGGTATAATCCAACCATCAAAAATAGAAGACCTTGCAAGAAG  
CAGAGTCATTCTCCAGAAGGAACCTGGGAGATGATGGTGCAGATGATGAAACTGGGTTTCATCCAGTTCCAAAGA  
CTCAGAGAACTAGAGTTAAGCTGAGGCAGAGTGCCGCCACCCTGGCATGCCCCACAAACAGATCACCAGCCAGC  
TTACACAGGCATTAACTCTCCTCAATGAGGAAGAATCATTCACAACTGAGCAAGACATTTCATATGATCATTTAAG  
GAAGTGTTTTCCCTTATGTGTTAGCAAGTATAATCGGCTAACTCCTAAATCCCAATGAATAGTCCTAGGCTGGACA  
GCAATGGGCTGCAATTAGGCAGATAAAGACATCAGTCCAGTAAATGAATCCATAGACTCATCTAGCACCAACTA  
CCATTAGCACTATGTTAGGAGCTGCAAGGCCCAAAGTAGAAGATGTGCATAATGTCTGCTCTTGTGTAGCTCAG  
GAGACAATTCCAGCACAGACACTACAGTTAACGCTGAAGTGCAGCTGCAAGTAATAGCATGAACAGTCAGAAAAA  
TACCTTATGAGGGGGCAGGGCTGAAGCTGGGCCTTGAAGGATGGATGAAATTTGGATAGAGAATGAGGAAGACAG  
AGGGCCTCCAAGTGAGAGAAGCATGAAAAATGAGCAGGGGCTGGATCAGTGGGGTGATTTCAGAGCACCTCTCC  
AGATGCACCATGCATGCTCACAGTCCCTTGCTTATGTGTGGCAGAGTGTCAGCCAGATGTGTGCCCCACCCC  
ATGTCCATTTACATGTCCTTCAATGCCACCTCAAAGGTACCTCTTCTGTAAAGCTTTCCCTGGTATCAGGAAT  
CAAAATTAATCAGGGATCTTTTCACTGCTGTTTTTCTCTTTGGTCTTCTATCACTAAAACCTCATCTCATT  
CAGCCTTACAGCATAACTAATTATTTGTTTTCTTCACTACATTGTACATGTGGGAATTACAGATAAACGGAAGCC  
GGCTGGGGTGGTGGCTCACGCCTGTAACCCCAACACTTTGGGAGGCCAAGGCAGGCGGATCACCTGAGGTCAGGA  
GTTTCGAGATTAGTCTGGCCAACATGGTGAACCCCATCTCTACTAAAAATACGAAATTAGCCAGGTGTGGTGGCA  
CACATCTGTAGTCCCAGCTACTCTGGAGGCTGAGACAGGAGAATCGCTTGAACCCAGGAAGTGAGGTTGCAGTG  
AGCTGAGATCACACCACTGCACTCCAGCCTGGGAGAGAGAGAGTGAGTCTCCATCTCAAAAAAAAAAAAAAAAAA

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**FIGURE 109**

MAQHHLWILLCLQWPEAAGKDSEIFTVNGILGESVTFPVNIQEPRQVKIIAWTSKTSVAYVTPGDSETAPVVT  
VTHRNYERIHALGPNYNLVISDLRMEDAGDYKADINTQADPYTTTKRYNLQIYRRLGKPKITQSLMASVNSTCN  
VTLTCSVEKEEKNVTYNWSPLGEEGNVLQIFQTPEDQELTYTCTAQNPVSNNSDSISARQLCADIAMGFRTHHTG  
LLSVLAMFFLLVLILSSVFLFRLFKRRQDAASKKTIYTYIMASRNTQPAESRIYDEILQSKVLPSKEEPVNTVYS  
EVQFADKMGKASTQDSKPPGTSSYEIVI



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**FIGURE 110A**

CACTGGGAGAGTTTATGTGGCCGAGGCAGACAAGTGAATTAGGCCTTGCTGCAGGGGACTTCATTTCTTCTCA  
GTACTGGACCCATTTATGAGGAGGTGGCTTATGAAAGTGTGATGTTTCGCGTATTTCTTGACAGGCAGTGGCGTGA  
TCTTGGCTCACTGCAACCTCCGACTCCCTGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTGGGGATTACAG  
GCCACAGCAAACACAGGTGTGCAGGAACCGTTTGTCATGAAGCCAGGGAGCCTGGGAGGCCACACCCACCTAC  
CATCTTGTCCCTAACACCAGCCAGTCCCAGGTGGAAGAAGATGTCAGCTCGCCACCTCAAAGGTCCTCCGAACT  
ATGCAGCTGAAGAAGGAGATCTCCCTGCTGAATGGGGTCAGCCTGGTGGTGGGCAACATGATCGGCTCAGGGATC  
TTTGTCTCACCCAAGGGTGTGCTGGTACACACTGCCTCCTATGGGATGTCAGTATTGTGTGGGCCATTGGTGGG  
CTCTTCTCTGTTGTGGGTGCCCTTTGTTATGCAGAGCTGGGGACCACCATACCAAGTCGGGAGCCAGCTACGCT  
TATATTCTAGAGGCCTTTGGGGGCTTCATTGCCTTCATCCGCTGTGGGTCTCACTGCTAGTTGTTGAGCCACC  
GGTCAGGCCATCATCGCCATCACCTTTGCCAACTACATCATCCAGCCGTCCTTCCCCAGCTGTGATCCCCATAC  
CTGGCCTGCCGTCTCCTGGCTGCTGCTTGTCATATGCTGCTGACATTTGTGAAGTGTGCCTATGTCAAGTGGGGC  
ACACGTGTGCAGGACACGTTCACTTACGCCAAGGTCGTAGCGCTCATTGCCATCATTGTGTCATGGGCCTTGTTAA  
CTGTGCCAGGGACACTCTGAGCACTTTCAGGACGCCCTTGAGGGTTCCCTCCTGGGACATGGGAAACCTCTCTCTT  
GCCCTCTACTCTGCCCTCTTCTCTTACTCAGGTTGGGACACCCTTAATTTTGTAACAGAAGAAATCAAAAACCCA  
GAAAGAAATTTGCCCTTGCCATTGGGATTCTATGCCAATTGTGACGCTCATCTACATCCTGACCAATGTGGCC  
TATTACACAGTGTGAACATTTAGATGTCCTTAGCAGTGATGCTGTGGCTGTGACATTTGCTGACCAGACGTTT  
GGCATGTTTCAGCTGGACCATCCCCATTGCTGTTGCCCTGTCTGCTTTGGGGGCTCAATGCATCCATCTTTGCT  
TCATCAAGGTTGTTCTTCGTGGGCTCCCGGGAGGGCCACCTACCGGACCTTCTGTCCATGATCCACATTGAGCGT  
TTTACACCTATCCCTGCTTTACTGTTCAATTGCACCATGGCACTCATCTACCTCATCGTGGAGGATGTTTTCCAG  
CTTATCAACTACTTCAGCTTCAGCTACTGGTTCTTCGTGGGCTGTCTGTTGTTGGACAGCTCTACCTCCGCTGG  
AAGGAGCCCAAGCGGCCCCGGCCTCTCAAGCTGAGCGTGTTTTTCCCATCGTGTTCTGCATATGCTCCGTGTTT  
CTGGTGATAGTGGCCCTCTTCACTGACACCATTAAATCCCTCATTGGCATCGGGATTGCCCTTTCTGGAGTCCCT  
TTCTACTTCATGGGTGTTTACCTGCCAGAGTCCCGGAGGCCATTGTTTATTGGAATGTCTGGCTGCTATCACC  
AGAGGCACCCAGCAGCTTTGCTTTTGTGTCCTGACTGAGCTTGATGTAGCCGAAGAAAAAAGGATGAGAGGAAA  
ACTGACTAGAGGTCAGAGGTGGCTTTCTGAGGCCTGGAAGGCAGGCCAACCAGCAAAATCCTGATAACAAGACTC  
TGTGGGCCCCAAGTCTCCTGAATTAAAGGAGCCTTTTGACCAATCATATAGTGGGGCTCAGGGCCAGTGCTCACT  
CTTATTGGTAAGCTATAGGAGACTCAGGATCTGGGCCAACCTCAAGGTGGGGGCTTCAGAGGGTGGGGGAAGAT  
TGGGGAACGGGGGAATGGTCATTTAGTTTTACTCCTGATAGGTAGATGCAGCTCTTACAGATATTTACTTGGTA  
AAGTGCAGTGGGGAAGAGGGAATGCTAGGTTGATAGGGCTGGTGGCTTCTGAATTGGTATTTGAACTAGGAGTC  
CCTATAGAGGGGCTGCTTTATGGGAAGTTTTTCTCTGACCAGGTACAACACCTGACTTTAAAGGCCTGAAATGCT  
ACCATTTCTTCTCTGGCTCAAAATTTCTTCCCTGGGGAGAGAGTTATATTCCCTTATTTATTGATATTTAGTCCA  
GAACACCAGTTCTAACGAAGCATGCGTGTCTCTTATCTACAGGATGCAATAGGCTGATTGTATTTAAAAATCAA  
AGTACCCAAAAGTGAAGTCCCTTTGGGCTCAGAAATGTCTGTGGTATTGGGTCAGACTCTGACCACAGATTTTATG  
CTGTTTAGCACAAATTTCTATTGAGTCTTACCTGCAACAATGAACCTTAAAGATTTTTTTACTCACGTACCTGTTA  
CACTTTAGCATAACAGATAGATCATAGATCACGTTACAAGCACTTGGCTCAGGTCCAGCAAGGACAGATGAACAAA  
TTCTGAGTCAGAAAGTCTGTTAATATTGCTGTTTTGAAGGACAATCCTTTATTTTACTTGAGACCTTACATCTTT  
GTTCTAGCTGACAGTAAATCTCTGGGTTTCTGTTACGAACCTCTAAGAGGGCTGAAACTTCTGATATTCAGGTGGA  
TCACCTGAATTCTCTCAGCTGTCAATGGCTTGGAGAACATCTCATGGGCCCAAGTCATCAAATAACCTGTTCTCTC  
TCTGTAAGGGCAGTGTGAGGGACTGCTGTGCAGACCCAAGCAATCCCAACCTGGTGCTAGGTCATTTCACTTTTC  
TGAAAACCTCACATCAGGCTGCATCCTCTCTGTCCTGGCACCAGGCTTTGTTTACACTTGGAGCCACCTTGGT  
GTGGGTCACCGGACAGTGTACTCCTCTCCTGCCAGCCTCCCCCTCCCCGAGGTGTGGTGGCTGCAGTCTCAGGA  
AGAGCTTGGTACTTGTGGGGACTTCTGTTTTCTCCCTGTGGAGATCAGTGAAGACTGGGAGGAAAGCTGCTTCAA  
CCTGAGTCCGGCTCTTCAGCAGGCTGCACAAGTGAAGCAACTAATCTGGTGCTCAGGCTGGGCTCTCCACCCA  
AGTTAGGCCTGCTCTGGCCTAATGGATCTTACTGTATGAGCAGGACGGCTGCATTGGATTGTACAAGTGTGTTGT  
GATGCCCCCAGACACTGTATCCTAGGCCGAGAAGAACCTGCTAGCTTGACATACCCCATGGGCTTATCCTTAGG  
TTTTGGAATTGGTCAACAGTGAGGCAGTCTCCCTTCTGACCATCTTCTCCACCCAGTCACAGATAAGGGAATA  
ACCTTGCCCATATATTGCTCAATAAAGATTGAAGGAAGCATGGTCATAGTTGCCCTGGGTTTCAGAGCATAATGC  
ATATGTGAAGCATGGGGTGACATTCTACTGTGATGGGTTTGGGATTGTAAACGGCAATTCCTGCCCGACGACA

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**FIGURE 110B**

GGGTGTCTTATGCAAAGGCTGACTTGCCTGAACGCTAAGAACATGACTTCTGTCTGAGCTAAGCTGGCACCCATC  
CCAGGGCTCCTCTGGAGCTAATCCTTTAAGCAAAATGTGCTTGCCCTTTTAAAGATCCCTGACCCAGCTTTAGCT  
TTCTCCACCAGATAACCAGCTAATCCCAGGAATTTGCTGCCCCCACCAGTGGCTTCTAGGGAAAGCAAGGACCT  
CACATGCCAGGTGCCCTAGTACTTGCTTAGTGAGCCATGTTCATCCTCCTTTCAATTTTGGATGGTGACAGCATTT  
TTCCCCCTCTGTGCTGGATACAGACTTCTCCCAGGATCCTCTCTTTGGGAGCGAAGCCAGAGGATCCCTACAGCAC  
TCAAGCTTCATGGTGAATTAATTTCTGCCAGCTCTTTGTTGTCTGTCTCCTTAAATCCTTTTCTGGTGTGCTT  
ATTATCCCTTTTGCAGTGAGTACAGTTTATTAAAGTTGTGAGCCCTTAAATATTGGGGAACTTAATGAGTATAAA  
TAGCAGGGAGCACATTGTAACAGCACAGTGTGTTTTGTTTTTACCCGGTTGCTGTATGAGAATGGCTTTCAATC  
CTTTGTTTCTATGCCTACAGACAGAAAGCAAGATGTCTAATATTAGACATACAAGTTGCTGCCTGTTATAACGGT  
GAATTATACCTTTGTGCATGCCTAGGATGTTTGTGTTTTAATTAGCTGCAATATATACGGCCTGTGTACACAGA  
ATTTAATCACTTCGGCAGGTTGAACAACTCCATGTAGATAAGAGCAAGTGTAGGCAAAGGTTTAGAAAATGGACA  
TAAAGTCAAAGAATGATGGCAGGTAGGATGAAGGAGAGATACTTAGGAAATCCTAAAAGAGGCGGCAAGAAGGTA  
CCTCCCTGTGTAATCACCTTCCCCATGACAGTAAGAGACACTCACAGGCTATGAGGGTACACCCCTAGCTGAA  
TGTTCTGTGTTGTTTCTTAGACCTGTGGTGTCCGCTGCAACAGCTACTAGCCACGTGTAGCTAATTACATTAAA  
ATGAAATAAAATTTAAAGCTCAGTTTCTCAGTTGCGCTAATCACATTTCAAGTGCTCAGCAGCCACCCGTGTCTA  
CTACTACACAGTGCAGACACAGAACATATCATCACTGCAGATAGTTCTACTGGACAATGTTACGCTAGAATAAAC  
ACCAAGGCAGTCAGTTAAGGCAGCTATGGTTTGGAAAGGCATACGGACAGAGTCTGCTTAGAAGAGATACAAGTT  
GTTAATAAAATTTGATCCTGTTGATAGTAGTTTGTGTTTTGTGGTGGGTGCTGTGAAGAGTAAACATTACTCAGTGG  
AAAGCTAAGTTTCAAGGTAACCTTTGTTTTTCTCCCTTGCCCTTAAAGTCCCTGGTATTTATAATCAATGCTGAACC  
TTCTATTTCACTACCGCTCCCTGTTTTAGATATTAGATTTTAAAGGTTTTCAAAGAATTACTTTCTTCCATGTT  
CAAAGCTAGATTTTACTAAACACATGTATCACATTATATATATTGTTTCTTGGCCCCACTGCCAAAGGAAGTCA  
GTCAGTAATTTCAACACCGTTATCAGAGTTTGGAAAGCAGAAATAGCTGTTAACTAAAATCTCCCACTGCTCAGAC  
TACTTTCTGCCCTAATGGCCATTACTATCCAGTCTGTATTGCTACAAGGGACCCACTGGTACCCCTTTTAGATTCT  
TATCAAAAGGAACAGGGTTTTCTAGAGGCAGGCAGCCTGGTGGTATGGCACAGCAGAAGCTTACTGCTAATGAA  
ATGGGAACCTCCCCCTCCCTTGTGGTTTTAGCACAGAACCTGAATGCCAGGAAAAATTCCTGGGCCAAGAAGCTA  
AAGCTAAAGAAACCTTCCTTTTTCAACGTTTTTTTTCTTTCAAACGTAGGGTCACTTTTGATTGAGGCAAG  
GGGTCCCTACTGTAAGTGAAAAGACTCACTCCCCTAACATAAGTTTCACTGTGGTGGGATGGTGCCGCCCGATA  
TGCTTGATATGCTTTTCTTCCACATGTTAAGCTAGGAAACCTAACAGGATGTCAGCAGGGCAGTTAACTCTGGA  
CTCAGAGCCCTCAAGGGCATGTGGCAGAACCTCATGGACATCACAGACCATCAGTCTGAATCCAGGTCGTGGGG  
GCTGTATAGCCGAATCCTTCTGCACATCCAGAGGGTACTTGCTCCACATCCGCTGTCTGCTGCTGCCTCTTTC  
CTCCTCACTCAGGCTGTTGTAGTCAGCAGAGCCTAGAATGACATCCCGGGAGTGGATTCTAAATGTGATTTTCTT  
AGGCTACTGCAGGAGCCCTTCTCTTCTCAGAAAGGTCTGTTTTTGTTCGATTGTAATGCAAAATCCTTGCTC  
AATAAATAAAAAAGAATATAGAATCTTTTTTTTTTAAAGAAGGAATCACTTTCCTATCATCTAAACCAAGTTCC  
TTCACACTGGAGTATTTTGTCACTTCTCCCTCCGTGGAGTATTTGTCACTTCTCCCTCCGTATAGGATTTTT  
TGTTGTTGTAAGAGTTGTAGTCATATTGTAAATATTTTGTACCTTTCTCCTTTTAAACGTGTTATTGACAAACCT  
CCCCAAAAGAATATGCAATTGTTTGATTCAATTTCTCTGTTATCAGACACCAATAAATTCCTTTTGTGGGC

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**FIGURE 111**

MEAREPGRPTPTYHLVPNTSQSQVEEDVSSPPQRSSETMQLKKEISLLNGVSLVVGNMIGSGIFVSPKGVLVHTA  
SYGMSLIVWAIGGLFSVVGALCYAELGTTITKSGASYAYILEAFGGFIAFIRLWVSLLVVEPTGQAIITFANY  
IIQPSFPSCDPPYLACRLLAAACICLLTFVNCAVVKWGTRVQDTFTYAKVVALIAIIVMGLVKLCQGHSEHFQDA  
FEGSSWDMGNLSLALYSALFSYSGWDTLNFVTEEIKNPERNLPLAIGISMPIVTLIYILTNVAYYTVLNISDVLS  
SDAVAVTFADQTFGMFSWTIPIAVALSCFGGLNASIFASSRLFFVGSREGHLPDLLSMIHIERFTPALLFNCT  
MALIYLVIEDVFQLINYFSFSYWFFVGLSVVGQLYLRWKEPKRPRPLKLSVFFPIVFCICSVFLVIVPLFTDTIN  
SLIGIGIALSGVPFYFMGVYLPESRRPLFIRNVLAAITRGTQQLCFCVLTELDVAEEKKDERKTD

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**FIGURE 112**

AGCCTACGCACGAAAGTGACTAGGGAGGAAGGATATTATAAAGTGATGCAAACAGAAATTCCACCAGCCTCCATG  
TATCATCATGTGTCATAACTCAGTCAAGCTCAGTGAGCATTCTCAGCACATTGCCICAACAGCTTCAAGGTGAGC  
CAGCTCAAGACTTTTGCTCTCCACCAGGCAGAAGATGACAGACTGTGAATTTGGATATATTTACAGGCTGGCTCAG  
GACTATCTGCAGTGCGTCCTACAGATAACCACAACCTGGATCAGGTCCAAGCAAAACGTCCAGAGTGCTACAAAAT  
GTTGCGTTCTCAGTCCAAAAAGAAGTGGAAGAATCTGAAGTCATGCTTGGACAATGTTAATGTTGTGTCCGTA  
GACACTGCCAGAACACTATTCAACCAAGTGATGGAAGAAGGAGTTTGAAGACGGCATCATTAAGTGGGAAGAATT  
GTAACCATATTTGCATTTGAAGGTATTCTCATCAAGAACTTCTACGACAGCAAATTGCCCCGGATGTGGATACC  
TATAAGGAGATTTCATATTTTGTGCGGAGTTCATAATGAATAACACAGGAGAATGGATAAGGCAAAACGGAGGC  
TGGGAAAATGGCTTTGTAAAGAAGTTTGAACCTAAATCTGGCTGGATGACTTTTCTAGAAGTTACAGGAAAGATC  
TGTGAAATGCTATCTCTCCTGAAGCAATACTGTTGACCAGAAAGGACACTCCATATTGTGAAACCGGCCTAATTT  
TTCTGACTGATATGGAAACGATTGCCAACACATACTTCTACTTTTAAATAAACAACCTTTGATGATGTAACCTTGAC  
CTTCCAGAGTTATGGAAATTTTGTCCCATGTAATGAATAAATTGTATGTATTTTCTCT

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**FIGURE 113**

MTDCEFGYIYRLAQDYLCVLQIPQPGSGPSKTSRVLQNVAFSVQKEVEKNLKSCLDNVNVVSVDIARTLFNQVM  
EKEFEDGIINWGRIVTIFAFEGILIKLLRQQIAPDVDTYKEISYFVAEFIMNNTGEWIRQNGGWENG FVKKFEP  
KSGWMTFLEVTGKICEMLSLLKQYC

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**FIGURE 114A**

TAACGAGGAAC TTTTCGCCGGCGCCGGGCGCCTCTGAGGCCAGGGCAGGACACGAACGCGCGGAGCGGGCGGCGG  
CGACTGAGAGCCGGGGCGCGGGCGGCGCTCCCTAGGAAGGGCCGTACGAGGCGGCGGGCCCGGCGGGCCTCCCGG  
AGGAGGCGGCTGCGCCATGGACGAGCCACCCTTCAGCGAGGCGGCTTTGGAGCAGGCCTGGGCGAGCCGTGCGA  
TCTGGACGCGGCGCTGCTGACCGACATCGAAGACATGCTTCAGCTTATCAACAACCAAGACAGTGACTTCCCTGG  
CCTATTTGACCCACCCTATGCTGGGAGTGGGGCAGGGGACAGACCCTGCCAGCCCCGATAACCAGCTCCCCAGG  
CAGCTTGTCTCCACCTCCTGCCACATTGAGCTCCTCTCTTGAAGCCTTCCTGAGCGGGCCGAGGCAGCGCCCTC  
ACCCCTGTCCCTCCCCAGCCTGCACCCACTCCATTGAAGATGTACCCGTCCATGCCCGCTTTCTCCCTGGGCC  
TGGTATCAAGGAAGAGTCAGTGCCACTGAGCATCTGCAGACCCCCACCCACAGCCCCTGCCAGGGGCCCTCCT  
GCCACAGAGCTTCCAGCCCCAGCCCCACCGCAGTTTCAGCTCCACCCTGTGTTAGGCTACCCAGCCCTCCGGG  
AGGCTTCTCTACAGGAAGCCCTCCCGGGAACACCCAGCAGCCGCTGCCTGGCCTGCCACTGGCTTCCCCGCCAGG  
GGTCCCCGCCGTCTCCTTGCACACCCAGGTCCAGAGTGTGGTCCCCAGCAGCTACTGACAGTCACAGCTGCCCC  
CACGGCAGCCCCGTGTAACGACCACTGTGACCTCGCAGATCCAGCAGGTCCCGGTCTGCTGCAGCCCCACTTCAT  
CAAGGCAGACTCGCTGCTTCTGACAGCCATGAAGACAGACGGAGCCACTGTGAAGCGGCAGGTCTCAGTCCCCT  
GGTCTCTGGCACCCTGTGCAGACAGGGCCTTTGCCGACCCTGGTGAGTGGCGGAACCATCTTGGCAACAGTCCC  
ACTGGTCGTAGATGCGGAGAAGCTGCCTATCAACCGGCTCGCAGCTGGCAGCAAGGCCCGGCCTCTGCCCAGAG  
CCGTGGAGAGAAGCGCACAGCCCACAACGCCATTGAGAAGCGCTACCGCTCCTCCATCAATGACAAAATCATTGA  
GCTCAAGGATCTGGTGGTGGGCACTGAGGCAAAGCTGAATAAATCTGCTGTCTTGGCGAAGGCCATCGACTACAT  
TCGCTTTCTGCAACACAGCAACCAGAACTCAAGCAGGAGAACCTAAGTCTGCGCACTGCTGTCCACAAAAGCAA  
ATCTCTGAAGGATCTGGTGTGCGCCTGTGGCAGTGGAGGGAACACAGACGTGCTCATGGAGGGCGTGAAGACTGA  
GGTGGAGGACACACTGACCCACCCCCCTCGGATGCTGGCTCACCTTTCCAGAGCAGCCCCCTTGTCCCTTGGCAG  
CAGGGGCAGTGGCAGCGGTGGCAGTGGCAGTGACTCGGAGCCTGACAGCCCAGTCTTTGAGGACAGCAAGGCAAA  
GCCAGAGCAGCGGCCGTCTCTGCACAGCCGGGGCATGCTGGACCGCTCCCGCCTGGCCCTGTGCACGCTCGTCTT  
CCTCTGCCTGTCTGCAACCCCTTGGCCTCCTTGC TGGGGGCGCCGGGGGCTTCCCAGCCCCCTCAGATACCACCAG  
CGTCTACCATAGCCCTGGGCGCAACGTGCTGGGCACCGAGAGCAGAGATGGCCCTGGCTGGGCCCAGTGGCTGCT  
GCCCCCAGTGGTCTGGCTGCTCAATGGGCTGTTGGTGCTCGTCTCCTTGGTGCTTCTCTTTGTCTACGGTGAGCC  
AGTCACACGGCCCCACTCAGGCCCCCGCGTGTACTTCTGGAGGCATCGCAAGCAGGCTGACCTGGACCTGGCCCCG  
GGGAGACTTTGCCCAGGCTGCCCAGCAGCTGTGGCTGGCCCTGCGGGCACTGGGCGGGCCCCCTGCCCACCTCCCA  
CCTGGACCTGGCTTGTAGCCTCCTCTGGAACCTCATCCGTACCTGCTGCAGCGTCTCTGGGTGGGCCGCTGGCT  
GGCAGGCCCGGGCAGGGGGCCTGCAGCAGGACTGTGCTCTGCGAGTGGATGCTAGCGCCAGCGCCCGAGACGCAGC  
CCTGGTCTACCATAAGCTGCACCAGCTGCACACCATGGGGAAGCACACAGGCGGGCACCTCACTGCCACCAACCT  
GGCGCTGAGTGCCCTGAACCTGGCAGAGTGTGCAGGGGATGCCGTGTCTGTGGCGACGCTGGCCGAGATCTATGT  
GGCGGCTGCATTGAGAGTGAAGACCAGTCTCCCACGGGCCTTGCAATTTCTGACACGCTTCTTCCTGAGCAGTGC  
CCGCCAGGCCTGCCTGGCACAGAGTGGCTCAGTGCCTCCTGCCATGCAGTGGCTCTGCCACCCCGTGGGCCACCG  
TTTCTTCGTGGATGGGGACTGGTCCGTGCTCAGTACCCCATGGGAGAGCCTGTACAGCTTGGCCGGGAACCCAGT  
GGACCCCTGGCCCAGGTGACTCAGCTATTCCGGGAACATCTCTTAGAGCGAGCACTGAACTGTGTGACCCAGCC  
CAACCCAGCCCTGGGTGAGCTGATGGGGACAAGGAATTCTCGGATGCCCTCGGGTACCTGCAGCTGCTGAACAG  
CTGTTCTGATGCTGCGGGGGCTCCTGCCTACAGCTTCTCCATCAGTTCCAGCATGGCCACCACCACCGGCGTAGA  
CCCGGTGGCCAAGTGGTGGGCCCTCTCTGACAGCTGTGGTGATCCACTGGCTGCGGCGGGATGAGGAGGCGGCTGA  
GCGGCTGTGCCCCTGGTGGAGCACCTGCCCGGGTGCTGCAGGAGTCTGAGAGACCCCTGCCAGGGCAGCTCT  
GCACTCCTTCAAGGCTGCCCCGGGCCCTGCTGGGCTGTGCCAAGGCAGAGTCTGGTCCAGCCAGCCTGACCATCTG  
TGAGAAGGCCAGTGGGTACCTGCAGGACAGCCTGGCTACCACACCAGCCAGCAGCTCCATTGACAAGGCCGTGCA  
GCTGTTCTGTGTGACCTGCTTCTTGTGGTGCGACACAGCCTGTGGCGGCAGCAGCAGCCCCCGGCCCGGCCCC  
AGCAGCCCAGGGCGCCAGCAGCAGGCCCCAGGCTTCCGCCCTTGAAGTGCCTGGCTTCCAACGGGACCTGAGCAG  
CCTGAGGCGGCTGGCACAGAGCTTCCGGCCCGCCATGCGGAGGGTGTTCCTACATGAGGCCACGGCCCGGCTGAT  
GGCGGGGGCCAGCCCCACACGGACACACCAGCTCCTCGACCGCAGTCTGAGGCGGCGGGCAGGCCCGGTGGCAA  
AGGAGGCGCGGTGGCGGAGCTGGAGCCGCGGGCCACGCGGCGGGAGCACGCGGAGGCCTTGCTGCTGGCCTCCTG  
CTACCTGCCCCCGGCTTCTGTGCGCGCCCGGGCAGCGCGTGGGCATGCTGGCTGAGGCGGCGCGCACACTCGA  
GAAGCTTGGCGATCGCCGGCTGCTGCACGACTGTCAGCAGATGCTCATGCGCCTGGGCGGTGGGACCCTGTCAC

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**FIGURE 114B**

TTCCAGCTAGACCCCGTGTCCCCGGCCTCAGCACCCCTGTCTCTAGCCACTTTGGTCCCGTGCAGCTTCTGTCCT  
GCGTCGAAGCTTTGAAGGCCGAAGGCAGTGCAAGAGACTCTGGCCTCCACAGTTCGACCTGCGGCTGCTGTGTGC  
CTTCGCGGTGGAAGGCCCGAGGGGCGCGATCTTGACCCCTAAGACCGGCGGCCATGATGGTGCTGACCTCTGGTGG  
CCGATCGGGGCACTGCAGGGGCCGAGCCATTTTGGGGGGCCCCCTCCTTGCTCTGCAGGCACCTTAGTGGCTTT  
TTTCCTCCTGTGTACAGGGAAGAGAGGGGTACATT TCCCTGTGCTGACGGAAGCCAACCTTGGCTTTCCCGGACTG  
CAAGCAGGGCTCTGCCCCAGAGGCCTCTCTCTCCGTCGTGGGAGAGAGACGTGTACATAGTGTAGGTCAGCGTGC  
TTAGCCTCCTGACCTGAGGCTCCTGTGCTACTTTGCCTTTTGCAAACCTTATTTTCATAGATTGAGAAGTTTGT  
ACAGAGAATTAAAAATGAAATTATTTATA

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**FIGURE 115**

MDEPPFSEAALEQALGEPCLDAALLTDIEDMLQLINNQDSDFPGLFDPFYAGSGAGGTDPA SPDTSSPGSLSP  
PATLSSSLEAFLSGPQAAPSPLSPPQAPPTPLKMYPSMPAFSPGPGIKEESVPLSILQTPTPQPLPGALLPQSFP  
APAPPQFSSTPVLGYPSPPGGFSTGSPPGNTQQPLPGLPLASPPGVPPVSLHTQVQSVVPQQLLTVTAAPTAAV  
TTTVTSQIQQVPVLLQPHFIKADSLLLTAMKTDGATVKAAGLSPLVSGTTVQTGPLPTLVSGGTILATVPLVVDA  
EKLPIINRLAAGSKAPASAQSRGEKRTAHNAIEKRYRSSINDKIIELKDLVVGTEAKLNKSAVLRKAIDYIRFLQH  
SNQKLKQENLSLRTAVHKSLSKDLVSACSGGNTDVLMEGVKTEVEDTLTPPPSDAGSPFQSSPLSLGSRGSGS  
GGSGSDSEPDSPVFEDSKAKPEQRPSLHSRGM LDRSRLALCTLVFLCLSCNPLASLLGARGLPSPSDTTSVYHSP  
GRNVLGTESRDGPGWAQWLLPPVVWLLNGLLVLSLVLLFVYGEVTRPHSGPAVYFWRHRKQADLDLARGDFAQ  
AAQQLWLALRALGRPLPTSHLDLACSLWNLIRHLLQRLWVGRWLAGRAGGLQQDCALRVDASASARDAALVYHK  
LHQLHTMGKHTGGHLTATNLALSALNLAECAGDAVSVATLAEIYVAAALRVKTS LPRALHFLTRFFLSSARQACL  
AQSGSVPPAMQWLCHPVGHRFFVDGDWSVLSTPWESLYSLAGNPVDPLAQVTQLFREHLLERALNCVTQPNPSPG  
SADGDKEFSDALGYLQLLNSCSDAAGAPAYSFSISSSMATTTGVDPVAKWWASLTAVVIHWLRRDEEAAERLCPL  
VEHLPRVLQESERPLPRAALHSFKAARALLGCAKAESGPASLTICEKASGYLQDSLATTPASSSIDKAVQLFLCD  
LLLVRTSLWRQQOPPAPAPAAQGASSRPQASALELRGFQRDLSLRLRAQSRPAMRRVFLHEATARLMAGASP  
TRTHQLLDRSLRRRAGPGGKGGAVAELEPRPTRREHAEALLASCYLPPGFLSAPGQRVGMLAEAAARTLEKLGDR  
RLLHDCQQMLMRLGGGTTVTSS



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**FIGURE 116**

CACAGCTCTGCAGCTCGTGGCAGCGGCGCAGCGCTCCAGCC**ATG**TCGCGCGGCCTCCAGCTTCTGCTCCTGAGCT  
GCGCCTACAGCCTGGCTCCCGCGACGCCGGAGGTGAAGGTGGCTTGCTCCGAAGATGTGGACTTGCCCTGCACCG  
CCCCCTGGGATCCGCAGGTTCCCTACACGGTCTCCTGGGTCAAGTTATTGGAGGGTGGTGAAGAGAGGATGGAGA  
CACCCCAGGAAGACCACCTCAGGGGACAGCACTATCATCAGAAGGGGCAAATGGTTCTTTTCGACGCCCCCAATG  
AAAGGCCCTATTCCCTGAAGATCCGAAACACTACCAGCTGCAACTCGGGGACATACAGGTGCACTCTGCAGGACC  
CGGATGGGCAGAGAAACCTAAGTGGCAAGGTGATCTTGAGAGTGACAGGATGCCCTGCACAGCGTAAAGAAGAGA  
CTTTTAAGAAATACAGAGCGGAGATTGTCTGCTGCTGGCTCTGGTTATTTTCTACTTAACACTCATCATTTTCA  
CTTGTAAGTTTGACGGCTACAGAGTATCTTCCCAGATTTTCTAAAGCTGGCATGGAACGAGCTTTTCTCCAG  
TTACCTCCCCAAATAAGCATTTAGGGCTAGTGACTCCTCACAAGACAGAAGTGGTAT**AG**AGCAGGATTTCTGCAGG  
TTCTTCTTCTGAAGCTGAGGCTCAGGGGTGTGCCGTGTCTGTTACACTGGAGGAGAGAAGAATGAGCCTACGCTG  
AAGATGGCATCCTGTGAAGTCTTCACTCACTGAAAACATCTGGAAGGGGATCCACCCCCATTTTCTGTGGGCA  
GGCCTCGAAAACCATCACATGACCACATAGCATGAGGCCACTGCTGCTTCTCCATGGCCACCTTTTACGCGATGT  
ATGCAGCTATCTGGTCAACCTCCTGGACATTTTTCAGTCATATAAAAGCTATGGTGAGATGCAGCTGGAAAAGG  
GTCTTGGGAAATATGAATGCCCCAGCTGGCCCGTGACAGACTCCTGAGGACAGCTGTCTCTTCTGCATCTTGG  
GGACATCTCTTTGAATTTTCTGTGTTTGTCTGTACCAGCCAGATGTTTTACGTCTGGGAGAAATTGACAGATCA  
AGCTGTGAGACAGTGGGAAATATTTAGCAAATAATTTCTGGTGTGAAGGTCTCTGCTATTACTAAGGAGTAATCT  
GTGTACAAAGAAATAACAAGTCGATGAACTATTCCCAGCAGGGTCTTTTCATCTGGGAAAGACATCCATAAAGA  
AGCAATAAAGAAGAGTGCCACATTTATTTTATATCTATATGTACTTGTCAAAGAAGGTTTGTGTTTTTCTGCTT  
TTGAAATCTGTATCTGTAGTGAGATAGCATTGTGAACTGACAGGCAGCCTGGACATAGAGAGGGAGAAGAAGTCA  
GAGAGGGTGACAAGATAGAGAGCTATTTAATGGCCGGCTGGAAATGCTGGGCTGACGGTGCAGTCTGGGTGCTCG  
CCCATTGTCCCACTATCTGGGTGCATGATCTTGAGCAAGTTCCTTCTGGTGTCTGCTTCTCCATTGTAAACCA  
CAAGGCTGTTGCATGGGCTAATGAAGATCATATACGTGAAAATTATTTGAAAACATATAAAGCACTATACAGATT  
CGAAACTCCATTGAGTCATTATCCTTGCTATGATGATGGTGTGTTTTGGGGATGAGAGGGTGCTATCCATTTCTCAT  
GTTTTCCATTGTTTGAAACAAAGAAGGTTACCAAGAAGCCTTTCCTGTAGCCTTCTGTAGGAATTCTTTTGGGGA  
AGTGAGGAAGCCAGGTCCACGGTCTGTTCTTGAAGCAGTAGCCTAACACACTCCAAGATATGGACACACGGGAGC  
CGCTGGCAGAAGGGACTTCACGAAGTGTGTCATGGATGTTTTAGCCATTGTTGGCTTTCCTTATCAAACCTTGGG  
CCCTTCCCTTCTTGGTTTTCCAAAGGCATTTATTGCTGAGTTATATGTTCACTGTCCCCCTAATATTAGGGAGTAA  
AACGGATACCAAGTTGATTTAGTGTTTTTACCTCTGTCTTGGCTTTCATGTTATTAAACGTATGCATGTGAAGAA  
GGGTGTTTTTCTGTTTTATATTCAACTCATAAGACTTTGGGATAGGAAAAATGAGTAATGGTTACTAGGCTTAAT  
ACCTGGGTGATTACATAATCTGTACAACGAACCCCATGATGTAAGTTTACCTATGTAACAAACCTGCACCTTATA  
CCCATGAACCTAAAATGAAAGTTAAAAATAAAAAACATATACAAATAAAAAAA

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**FIGURE 117**

MSRGLQLLLLSCAYSLAPATPEVKVACSEDVDLPCTAPWDPQVPYTVSWVKLLEGGEERMETPQEDHLRGQHYHQ  
KGQNGSFDAPNERPYSLKIRNTTSCNSGTyrCTLQDPDGQRNLsgkvILrvtGCPAQRKEETFkkyRAEIVLLLA  
LVIFYLTLIIFTCKFARLQSIFPDFSKAGMERAFLPVTSPNkHLGLVTPHKTELV

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**FIGURE 118**

ATGCTCCTCGATGTGGAGCCGCTGGAGCCTACACTTAGCAACATCATCGAGCAGCGCAGCCTGAAGTGGATCTTC  
GTCGGGGGCAAGGGTGGTGTGGGCAAGACCACCTGCAGCTGCAGCCTGGCAGTCCAGCTCTCCAAGGGGCGTGAG  
AGTGTTCGATCATCTCCACAGACCCAGCACACAACATCTCAGATGCTTTTGACCAGAAGTTCTCAAAGGTGCCT  
ACCAAGGTCAAAGGCTATGACAACCTCTTTGCTATGGAGATTGACCCAGCCTGGGCGTGGCGGACGTGCCTGAC  
GAGTTCTTCGAGGAGGACAACATGCTGAGCATGGGCAAGAAGATGATGCAGGAGGCCATGAGCGCATTTCCTGGC  
ATCGATGAGGCCATGAGCTATGCCGAGGTCATGAGGCTGGTGAAGGGCATGAACTTCTCGGTGGTGGTATTTGAC  
ACGGCACCCACGGGCCACACCCTGAGGCTGCTCAACTTCCCCACCATCGTGGAGCGGGGCTGGGCCGGCTTATG  
CAGATCAAGAACCAGATCAGCCCTTTTCATCTCACAGATGTGCAACATGCTGGGCCTGGGGGACATGAACGCAGAC  
CAGCTGGCCTCCAAGCTGGAGGAGACGCTGCCCGTCATCCGCTCAGTCAGCGAACAGTTCAAGGACCCTGAGCAG  
ACAACTTTCATCTGCGTATGCATTGCTGAGTTCTGTCCCTGTATGAGACAGAGAGGCTGATCCAGGAGCTGGCC  
AAGTGCAAGATTGACACACACAATATAATTGTCAACCAGCTCGTCTTCCCGACCCCGAGAAGCCCTGCAAGATG  
TGTGAGGCCCGTCACAAGATCCAGGCCAAGTATCTGGACCAGATGGAGGACCTGTATGAAGACTTCCACATCGTG  
AAGCTGCCGCTGTTACCCCATGAGGTGCGGGGGGCAGACAAGGTCAACACCTTCTCGGCCCTCCTCCTGGAGCCC  
TACAAGCCCCCAGTGCCAGTAGCACAGCTGCCAGCCCCAACCGCTGCCATTTCACTCACCCTCCACCCTCC  
CCACCCCTCGGGGCAGAGTTTGCACAAAGTCCCCCCCATAATACAGGGGGAGCCACTTGGGCAGGAGGCAGGGA  
GGGTCCATTCCCCCTGGTGGGGCTGGTGGGGAGCTGTAGTTGCCCCCTACCTCTCCACCTCTTGCTCTTCAAT  
AAATGATCTTAACTG

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**FIGURE 119**

MLLDVEPLEPTLSNIEQRLKWIFVGGKGGVGKTTCSCLAVQLSKGRESVLIISTDPAHNISDAFDQKFSKVP  
TKVKGYDNLFAMEIDPSLGADVDPDEFFFEEDNMLSMGKKMMQEAMSAFPGIDEAMSYAEVMRLVKGMNFSVVVFD  
TAPTGHTLRLLNFPTIVERGLGRMQIKNQISPFISQMCNMLGLGDMNADQLASKLEETLPVIRSVSEQFKDPEQ  
TTFICVCIAEFLSLYETERLIQELAKCKIDTHNIIVNQLVFPDPEKPCKMCEARHKIQAKYLDQMEDLYEDFHIV  
KLPLLPEVRGADKVNTF SALLLEPYKPPSAQ

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**FIGURE 120**

AGTGCAGACGCGGCTCCTAGCGGATGGGTGCTATTGTGAGGCGGTTGTAGAAGAGTTTCGTGAGTGCTCGCAGCT  
CATACTGTGGCTGTGTATCCGTGGCCACAGCTGGTTGGCGTCGCCCTTGAAATCCCAGGCCGTGAGGAGTTAGCG  
AGCCCTGCTCACACTCGGCGCTCTGGTTTTCGGTGGGTGTGCCCTGCACCTGCCTCTTCCCCCATTCTCATTAAT  
AAAGGTATCC**ATG**GAGAACACTGAAAACCTCAGTGGATTCAAAATCCATTAAAAATTTGGAACCAAAGATCATACA  
TGGAAGCGAATCAATGGACTCTGGAATATCCCTGGACAACAGTTATAAAATGGATTATCCTGAGATGGGTTTATG  
TATAATAATTAATAATAAGAATTTTCATAAAAGCACTGGAATGACATCTCGGTCTGGTACAGATGTCGATGCAGC  
AAACCTCAGGGAACATTTCAGAACTTGAAATATGAAGTCAGGAATAAAAAATGATCTTACACGTGAAGAAATTGT  
GGAATTGATGCGTGATGTTTCTAAAGAAGATCACAGCAAAAGGAGCAGTTTGTGTTGTGTGCTTCTGAGCCATGG  
TGAAGAAGGAATAATTTTTGGAACAAATGGACCTGTTGACCTGAAAAAAATAACAACTTTTTTCAGAGGGGATCG  
TTGTAGAAGTCTAACTGGAAAACCCAACTTTTCATTATTACAGGCCCTGCCGTGGTACAGAAGTGGACTGTGGCAT  
TGAGACAGACAGTGGTGTTGATGATGACATGGCGTGTCTATAAAATACCAGTGGAGGCCGACTTCTTGTATGCATA  
CTCCACAGCACCTGGTTATTATTCTTGGCGAAATTCAAAGGATGGCTCCTGGTTCATCCAGTCGCTTTGTGCCAT  
GCTGAAACAGTATGCCGACAAGCTTGAATTTATGCACATTCTTACCCGGGTAAACCGAAAGGTGGCAACAGAATT  
TGAGTCCTTTTCTTTGACGCTACTTTTCATGCAAAGAAACAGATTCCATGTATTGTTTCCATGCTCACAAAAGA  
ACTCTATTTTTATC**ATA**AGAAATGGTTGGTTGGTGGTTTTTTTTAGTTTGTATGCCAAGTGAGAAGATGGTAT  
ATTTGGTACTGTATTTCCCTCTCATTTTGACCTACTCTCATGCTGCAGAGGGTACTTTAAGACATACTCCTTCCA  
TCAAAATAGAACCACTATGAAGCTACCTCAAACCTTCAGTCAGGTAGTTGCAATTGAATTAATTAAGGAATAAATA  
AAAATGGATACTGGTGCAGTCATTATGAGAGGCAATGATTGTTAATTTACAGCTTTCATGATTAGCAAGTTACAG  
TGATGCTGTGCTATGAATTTTCAAGTAATTGTGAAAAAGTTAAACATTGAAGTAATGAATTTTTATGATATTCCC  
CCCACTTAAGACTGTGTATTCTAGTTTTGTCAAACCTGTAGAAATGATGATGTGGAAGAACCTTAGGCATCTGTGGG  
CATGGTCAAAGGCTCAAACCTTTATTTTAGAATTGATATACACGGATGACTTAAGTGCATTTTAGACCATTTATC  
TGGGATTATGGTTTTGTGATGTTTGTCTGAACACTTTTGTGTAAAAAATAATAATAATGTTTAAATATTG  
AGAAAGAACTAATATTTTATGTGAGAGAAAGTGTGAGCAAACTAACTTGACTTTTAAGGCTAAACCTTAACATT  
CATAGAGGGGTGGAGTTTTAACTGTAAGGTGCTACAATGCCCTGGATCTACCAGCATAAATATCTTCTGATTTG  
TCCCTATGCATATCAGTTGAGCTTCATATACCAGCAATATATCTGAAGAGCTATTATATAAAAACCCCAAACCTGT  
TGATTATTAGCCAGGTAATGTGAATAAATTCTATAGGAACATATGAAATACAACCTTAAATAATAAACAGTGGAA  
TATAAGGAAAGCAATAAATGAATGGGCTGAGCTGCCTGTAACCTGAGAGTAGATGGTTTGAGCCTGAGCAGAGAC  
ATGACTCAGCCTGTTCCATGAAGGCAGAGCCATGGACCACGCAGGAAGGGCCTACAGCCATTTCTCCATACGCA  
CTGGTATGTGTGGATGATGCTGCCAGGGCGCCATCGCCAAGTAAGAAAGTGAAGCAAATCAGAACTTGTGAAGT  
GGAAATGTTCTAAAGGTGGTGAGGCAATAAAAATCATAGTACTCTTTGTAGCAAAATTCTTAAGTATGTTATTTT  
CTGTTGAAGTTTACAATCAAAGGAAAATAGTAATGTTTATACTGTTTACTGAAAGAAAAAGACCTATGAGCACA  
TAGGACTCTAGACGGCATCCAGCCGGAGGCCAGAGCTGAGCACTCAGCCCGGAGGCAGGCTCCAGGCCCTCAGCA  
GGTGCAGGAGCCGTCCTGCACCAAGTCTCACTGGCTGTCAGTATGACATTTACGGGAGATTCTTGTGTTGCTCAA  
AAAATGAGCTCGCATTTGTCAATGACAGTTTCTTTTCTTACTAGACCTGTAACCTTTGTAAATACACACAGCA  
TGTAATGGTATCTTAAAGTGTGTTTCTATGTGACAATTTGTACAAATTTGTTATTTTCCATTTTATTTCAAAA  
TATACATTCAAACCTTAAAT

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**FIGURE 121**

MENTENSVDSKSIKNLEPKIIHGSESMDSGISLDNSYKMDYPEMGLCIIINNKNFHKSTGMTSRSGTDVDAANLR  
ETFRNLKYEVRNKNDLTREEIVELMRDVSKEDHSKRSSFVCVLLSHGEEGIIFGTNGPVDLKKITNFFRGDRCRS  
LTGKPKLFIIQACRGTELDGCIETDSGVDDDMACHKIPVEADFLYAYSTAPGYYSWRNSKDGSWFIQSLCAMLKQ  
YADKLEFMHILTRVNRKVATEFESFSFDATEFHAKKQIPCIVSMLTKELYFYH

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**FIGURE 122A**

GGGCCAGTCGGCGCCGCGCGGAGCTGGCCGCTGGATTGGCTGCAACACTCGCGTGTGAGGCGGTTGCTAGGCTCC  
GGCCGCGCGCCCCGCCCTTGCGCTCAGCGCCCTCTACCGCCCGGTACGTGCTCGCGCGAAGGCTGCGGCGCGGC  
GCTCGCGCCTCTTAGGCTTGCGGTGGCGGCGGCGGAGCTTCGCGCCGAATCCCCGGGAGCGGCGGTGGCGGC  
GTCTGGGGCCAGGAGGAGCGAACACCTGCCGCGGTCTCCCGCCGGCGCTGGGCTCTGTGTGCTCCGGGATGGA  
GCAGGTGTGAGAGGGTGAGAACCAGCTCTGGGACCAAGTCACTTGCTTCTTACTTAGCAAGACTATCGACTT  
GAGCAAACCTTGGACCTGGGATGAGGATGCTGTGGGCTCTCGCTGCTGCTGCCCTCTGGGGAGGACCTTTCT  
CCTCTGCTCTCTGTGTTATGGCTCAGTCCCACTGGCCAGTGAACCTCAGAGGCTGTCAGGGACTGGGAAAA  
CCAGCTTGAGGCATCCATGCACTCAGTGCTCTCAGACCTCCACGAGGCTGTTCACAGTGTTGGCATTCTGA  
TGGCACGGCTGTCTGTCGGGCGCTCATTTCGAGTGACCATTCACAGATTGATTGCCTCCAGTGGAGATATCAT  
CAAGGTATCAGCGGCAGGGAAGGAGGCTTTGCCATCTTGGCTGCACTGGGACTCACAGAGCCACACCTTGGAGGG  
CCTCCCCCTTGACACTGATAAGGGTGTGCAATTACATTCAGTGAGCGCTACACGGCTGGGGGCCAACGGGAGCCA  
CATCCCCAGACCTCCAGTGTGTTCTCCATCGAGGTCTACCCTGAAGACCACAGTGATCTGCAGTCGGTGAGGAC  
AGCCTCCCCAGACCTGGTGAGGTGGTATCATCTGCCTGTGCTGCGGATGAACCTGTGACTGTTTTGACGGTGAT  
TTTGATGCCGACCTACCAAGATGACCCCAAAGCAAAGGATTGACCTCCTGCACAGGATGCGGAGCTTCTCAGA  
AGTAGAGCTTACAACATGAAATTAGTGCCGCTGGTGAATAACAGACTATTGACATGTCGGCCTTCATGGCTGG  
CCCGGGAAATCCAAAAAGGTGGTGGAGAATGGGGCCCTTCTCTCCTGGAAGCTGGGCTGCTCCCTGAACCAGAA  
CAGTGTCCTGACATTATGGTGTAGAGGCCCTGCCAGGGAGGGCGCAATGTCTGCTCAGCTTGGCTACCCTGT  
GGTGGGTGGCACATCGCCAATAAGAAGCCCCCTCTTCCCAAACGCGTCCGGAGGCAGATCCATGCTACACCCAC  
ACCTGTCACTGCCATTGGGGCCCCAACACGGCTATCCAGGAGCCCCCATCCAGGATCGTGCCAACCCCCACATC  
TCCAGCCATTGCTCCTCCAACAGAGACCATGGCTCCTCCAGTCAGGGATCCTGTTCTGGGAAACCCACGGTCAC  
CATCCGGACTCGAGGCGCCATTATTCAAACCCCAACCTAGGCCCATCCAGCCTACTCGGGTGTGAGAAGCTGG  
CACCACAGTTCTTGCCAGATTGCCCCAACGATGACCATTCCTGGCTATGTGGAGCCTACTGCAGTTGCTACCCC  
TCCACAACCACCACCAAGAAGCCACGAGTATCCACACCAAAACAGCAACGCCTTCAACTGACTCCACCACCAC  
CAGACTCGCAGGCCAACCAAGAAACACGGACACCCCGGCCAGTGCCCCGGGTACCACCAAAAGTTTCCATCAC  
CAGATTGGAACCTGCCTCACCGCCTACTCGTATTTCGCAACCACCACAGTGGAGTGCCCCGTGGCGGAGAACCCAA  
CCAGCGCCCAGAGCTCAAGAACCATATTGACAGGGTAGATGCCTGGGTTGGCACCTACTTTGAGGTGAAGATCCC  
GTCAGACACTTTCTATGACCATGAGGACACCACCACTGACAAGCTGAAGCTGACCTGAAACTGCGGGAGCAGCA  
GCTGGTGGGCGAGAAGTCTGGGTACAGTTCAACAGCAACAGCCAGCTCATGTATGGCCTTCCCGACAGCAGCCA  
CGTGGGCAAAACACGAGTATTTATGATGCCACAGACAAGGGGGGCTGTGCGCTGTGGATGCTTTCGAGATCCA  
CGTCCACAGGCGCCCCAAGGGGATAGGGCTCCTGCAAGGTTCAAGGCCAAGTTTGTGGGTGACCCGGCACTGGT  
GTTGAATGACATCCACAAGAAGATTGCCTTGGTAAAGAACTGGCCTTCGCCCTTGGAGACCAGAACTGTAGCAC  
CATCACCTTGCAATATCACCCGGGGCTCCATCGTGGTGAATGGACCAACAACACACTGCCCTTGGAGCCCTG  
CCCCAAGGAGCAGATCGCTGGGCTGAGCCGCCGATCGCTGAGGATGATGGAAAACCTCGGCCTGCCTTCTCCAA  
CGCCCTAGAGCCTGACTTTAAGGCCACAAGCATCACTGTGACGGCTCTGGCAGTTGTGCGCACCTACAGTTTAT  
CCCTGTGGTACCACCAGGAGAGTGCCCTCAGAGGCGCCGCCACAGAAGTGCCTGACAGGGACCCTGAGAAGAG  
CAGTGAGGATGATGTCTACCTGCACACAGTCATTCCGGCCGTGGTGGTGCAGCCATCCTGCTCATTGCTGGCAT  
CATTGCCATGATCTGCTACCGCAAGAAGCGGAAGGGCAAGCTTACCCTTGAGGACCAGGCCACCTTCATCAAGAA  
GGGGGTGCCTATCATCTTTGACAGCAACTGGACGACTCCAAGCCCCCACCCTCCTCCAGCATGCCACTCATTCT  
GCAGGAGGAGAAGGCTCCCCTACCCCTCCTGAGTACCCCAACCAGAGTGTGCCCCGAGACCCTCCTCTGAACCA  
GGACACCATGGGAGAGTACACGCCCTGCGGGATGAGGATCCCAATGCGCCTCCCTACCAGCCCCCACCGCCCTT  
CACAGTACCATGGAGGGCAAGGGCTCCCGTCCCAAGAACATGACCCCATACCGGTACCTCCTCCTATGTCCC  
ACCTTAAACCCGCAAGCGCTGGGTGGAGGACGGGTAGGGCAGGGCCCTGGAGACGACATGGTGTGTCTGTGGAG  
ACCGGTGGCCTGCAGACCATTGCCACCGGGAGCCGACACCTGACCTAGCACACACTGACACAGGGGCTGGACA  
AGCCCGCCCTCTCTGGTCTCCCAAACCCCAAAGCAGCTGGAGAGACTTTGGGGACTTTTTTATTTTTATTTTTT  
GCCTAACAGCTTTTGGTTTGTTCATAGAGAAGTCTTCGCTTCATTTTTGATGGCTGGCTCTGAAAGCACCATGTG  
GAGTGGAGGTGGAGGGACCGAGGAACCATGAATGAAGTTCGAGGCAGTGCCGGGCGGCCCCCTGGCTCTCTGCGT  
TTTGCCCTTAAACACTAACTGTACTGTTTTTCTATTACAGTGTGTCTAGCTGCAGGATGTAACATGGAAAACAGT  
AACTAAAGATTAAATTCAAAGGACTTTCAGAAGTTAAGGTTAAGTTTTTACGTTAATCTGCTGTTTACCTAAAC

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**FIGURE 122B**

TTGTATGTATAATTTTTGGGTGGGTATGGGGAATTGCTTTGCTAAAAATAAGCTCCCAGGGTGTTTCAAACCTTAG  
AGAAGACCAAGGGACAGTATTTTTTATCAAAGGAATACTATTTTTTCACACTACGTCAACTTGGTTGCTCTGATA  
CCCCAGAGCCTGATTGGGGGGCCTCCCGGCCCTGGCTCACGCCAAGTCCCTGGTGCTGGGTTTGCTCTCCCGCTGT  
TGCCAGGGGCTGGAAGCTGGAGGGGTCTCTTGGGCCATGGACATCCCCACTTCCAGCCCATGTACACTAGTGGCC  
CACGACCAAGGGGTCTTCATTTCCATGAAAAAGGGACTCCAAGAGGCAGTGGTGGCTGTGGCCCCAACCTTTGGT  
GCTCCAGGGTGGGCCAACTGCTTGTGGGGGCACCTGGGAGGTCAAAGGTCTCCACCACATCAACCTATTTTGTTT  
TACCCTTTTTCTGTGCATTGTTTTTTTTTTTTCTCTCTAAAAGGAATATCACGGTTTTTTTGAACACTCAGTGGGG  
GACATTTTGGTGAAGATGCAATATTTTATGTCATGTGATGCTCTTCTCTCACTTGACCTTGGCCGCTTTGTCCT  
AACAGTCCACAGTCTGCCCCGACCCACCCCATCCCTTTTCTCTGGCACTCCAGTCCAGCTTGGGCCCTGAACTAC  
TGGAAAAGGTCTGGCGGCTGGGGAGGAGTGCCAGCAATAGTTCATAATAAAAAATCTGTTAGCTCTCAAAGCTAAT  
TTTTTACTAAAGTTTTTATACAGCCTCAAATTGTTTTATTAAAAAAAAGATTTAAATGGTGATGCTTACAGCAG  
TTTGTACGAGCTCTTAAGTGTGATTCCATGGAAC TGACGGCTTTGCTTGTTTTGATTCTTTTCCCCCTACTTTT  
CCTAATGGTTTTAAATCTGGAATTACACTGGGGTTCTTTTGCCTTTTTTAGCAGAACATCCGTCCGTCCATCTGC  
ATCTCTGTCCCATGACTCAGGGGCGCCCACTCTGCTTCGATTCTCCTCCTGTGGAAGAAACCATTTTGAGCATGA  
CTTTTCTTGATGCTGAAGCGTTATTTTGGGTACTTTTTAGGGAGGAATGCCTTTCGCAATAATGTATCCATTCC  
CCTGATTGAGGGTGGGTGGGTGGACCCAGGCTCCCTTTGCACACAGAGCAGCTACTTCTAAGCCATATCGACTGT  
TTTGCAGAGGATTTGTGTCTCTCCCTCAGGAGGGGAGGCCTGGTAGGAGGGGGGAGAGTTCTCTGTCTCTACTG  
CTCTCAAGAGGGCATTTCCTTTCGCGCTTCTCCACAGGGCCCCAGCCCCCTCTCCCTGCCCAAGTCCCCAGGGG  
GTACTCTGGAGTGAGCAGTCCCCCTGTGGGGGAGCCTGTAAATGCGGGCTCAGTGGACCACTGGTGACTGGGCTC  
ATGCCTCCAAGTCAGAGTTTCCCCCTGGTGCCCCAGAGACAGGAGCACAAAGTGGGATCTGACCTGGTGAGATTATT  
TCTGATGACCTCATCAAAAAATAACAATTCCCAATGTTCCAGGTGAGGGCTTTGAAAGGCCTTCCAAACAGCTC  
CGTCGCCCCCTAGCAACTCCACCATTGGGCACTGCCATGCAGAGACGTGGCTGGCCCAGAAATGGCCTGTTGCCATA  
GCAACTGGAGGCGATGGGGCAGTGAACAGAATAACAACAGCAACAATGCCTTTGCAGGCAGCCTGCTCCCCCTGAG  
CGCTGGGCTGGTGATGGCCGTTGGACTCTGTGAGATGGAGAGCCAATCTCACATTCAAGTGTTCACCAACCACTG  
ATGTGTTTTTATTTCTTCTATATGATTTTTAAGATGTGTTTTCTGCATTCTGTAAAGAAACATATCAAACATAAT  
AAAAGCAGTGTCTTTATT



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**FIGURE 123**

MRMSVGLSLLLPLWGRTFLLLLSVMAQSHWPSEPSEAVRDWENQLEASMHSVLSDLHEAVPTVVGIPDGTAVVG  
RSFRVTIPTDLIASSGDI IKVSAAGKEALPSWLHWDSQSHTLEGLPLDTDKGVHYISVSATRLGANGSHIPQTSS  
VFSIEVYPEDHSDLQSVRTASPDGGEVSSACAADEPVTVLTVILDADLTGMTPKQRIDLLHRMRSFSEVELHNM  
KLPVVNNRFLDMSAFMAGPGNPKKVVENGALLSWKLGCSLNQNSVDPDIHGVEAPAREGAMSAQLGYPVVGWHIA  
NKKPPLPKRVRRQIHATPTPVTAIGPPTTAIQEPPSRIVPTPTSPAIA PPTETMAPPVRDPVPGKPTVTIRTRGA  
IIQTPTLGPIQPTRVSEAGTTVPGQIRPTMTIPGYVEPTAVATPPTTTT KPRVSTPKPATPSTDSTTTTTRRPT  
KKPRTPRPVPRVTTKVSITRLETASPPTRIRTTTSGVPRGGEPNQRPELKNHIDRVDAWVGTYFEVKIPSDTFYD  
HEDTTTDLKLTLKLREQQLVGEKSWVQFNSNSQLMYGLPDSSHVGKHEYFMHATDKGGLSAVDAFEIHVHRRPQ  
GDRAPARFKAKFVGDPALVLNDIHKKIALVKKLAF AFGDRNCSTITLQNITRGSIVVEWTNNTLPLEPCPKEQIA  
GLSRRIAEDDGKPRPAFSALEPDKATSITVTGSGSCRHLQFIPVVP RRVVPSEAPPTVDPDRDPEKSEDDVY  
LHTVIPAVVVAAILLIAGIIAMICYRKKRKGLTLEDQATFIKKGVP IIFADELDDSKPPPSSMPLILQEEKAP  
LPPPEYPNQSVPETTFLNQDTMGEYTPLRDEDPNAPPYQPPPPFTVPMEGKGSRPKNMTPYRSPPPYVPP

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**FIGURE 124A**

GATCAATACTGAGGCCGCGTTCGACCCCCTTGAGCCGAGACCCCCCCCCAGCCAGCCCCACCCACCCCCCGCA  
CACGCCCCACCCCCCCCCACGACCCAGCCTCATACCGCACCAGCTGAGGCACCCAAGAGGATTACCCCTGGGGCC  
CTCTCCCGCCCCCAAAAAGAGAAGATCCCCCTCTCTGGCCCATCCCTTCCCTTCTTCCCTCCCCCTCCCCC  
GAACTTTCCCTCTCGCATGCTTTTCCCTGCACCACGGATCGCTCTCGGATGCCGCTTGCTGGAAGCTGCGTT  
AGGAGCGAGCGGCGGCGGTGGCGGCGGTGGCGGCGGCGGCGGAGCTCGGGAGTGCTATGACCGGCAAACTCGCC  
GAGAAGCTGCCGCTGACCATGAGCAGTTTGCTAAACCAACTGCCTGACAATCTGTACCCCGAGGAGATCCCCAGC  
GCGCTCAACCTCTTCTCCGGCAGCAGCGACTCGGTAGTCCATTACAATCAGATGGCTACAGAGAATGTAATGGAC  
ATCGGTCTGACCAACGAGAAGCCCAACCCGGAACCTCTTACTCCGGCTCCTTCCAGCCAGCCCCCGGAACAAG  
ACCGTGACCTACTTGGGAAAGTTCGCTTCGACTCCCTTCCAACCTGGTGCCAGGACAACATCATTAGCCTCATG  
AGCGCCGGCATCTTGGGGGTGCCCGCGCTTACGGGGCGCTAAGCACGAGACGTCCACGGCCAGCATGGTGACG  
CCACCGCAGGGTGACGTGGAGGCCATGTATCCCGCGCTACCCCTTACTCCAACCTGCGGCGACCTTACTCAGAG  
CCCGTGTCTTTCCACGACCCCCAGGGCAATCCCGGGCTCGCTATTCCCCCAGGATTACCAATCGGCCAAGCCG  
GCGTTGGACAGCAATCTCTTCCCATGATTCTTGACTACAACCTCTACCACCACCCCAACGACATGGGCTCCATT  
CCGGAGCACAAGCCCTTCCAGGGCATGGACCCCATCCGGGTCAACCCGCCCCCTACTACCCCTCTGGAGACCATC  
AAGGCATTCAAAGACAAGCAGATCCACCCGGGCTTGGCAGCCTGCCCGAGCCGCGCTCACCCCTCAAGCCCATC  
CGGCCCCGCAAGTACCCCAACCGGCTTAGCAAGACACCGCTCCACGAACGGCCCCACGCGTGCCCGCCGAGGGC  
TGCGACCGCCGTTTACGCCGTTTCGGACGAGCTGACCCGGCACCTGCGCATCCACACGGGCCACAAGCCCTTCCAG  
TGCCGGATCTGCATGCGGAGCTTCAGCCGCAGCGACACCTCACCCTCACATCCGCACTCATACGGGCGAGAAG  
CCCTTTGCTGCGAGTTCTGCGGGCGCAAGTTTGC GCGCAGCGACGAGCGCAAGCGCCACGCCAAGATCCACCTC  
AAGCAAAAGGAGAAGAAGGCGGAGAAGGGCGGTGCACCTCTGCATCCTCGGCGCCCCCGTGTGCTGCGCCCCC  
GTGGTCAACACCTGCGCCCTGAGGATCGGGCCCCCAGATCCCCACTTTTCCCTTCCAGTGCTTCCGGCTGCTAGC  
CTGAAAGCAGCGGGAAAGCCAGCCACGGAGGCGTAGGGGCGCGCCCTGGCTTCCATGGACGTGCGGCCCCCTT  
GCTTCCCTTTCGATGCCCCCGGTTCCCAACCTTTCACGCCGGCCAGCGGTGAGGGGCCAGGGCTGGAGGCGCCTT  
CCCCTCGCGGTCCCCCACTTAGCCAAGGCGTGGGGGCGGAAAGGTGGCGTCTAGCCCGCTTGTTCAGTTCCGAT  
CGCCTTGATCCAGGGGCCGCCGGGCGCGCCAAGGACCTGCAAGGGACTGAAGGCGGAGCCCATCCAACCTCGC  
CCGACCCAAACACCTCATTTGTTTCCCCCACGTCTCCTCTATACCCCTCGAAGACTCGAGAGGGGGAGGGGGTA  
AGGAGCGCACCAAAAGCGCAGAGCTTGCTGCCCGCCGCACGCACGCGCGCTGCGTGCGGGGATGCGCGCGAGTGT  
GTGCGTGCTCGCGT  
ACTCTTGAGCTGAACTGGGCTGTGTTTACCCCAAACCTCTTCCCCACCTCGGGTCCCCAAGCCGCTGGGAGATGTC  
CCATGCTGGGGGTCCGCACGTGGCTGGAGGAGGTGGTCTTCCATCCGCTCTGAAATCATGTTTCTTAGAGAAATG  
CCTCGGATGCCCGCGACGCGGTGCTGCTGCCGCCGCTTCGGGTTTGGCCCCCTCAGAACCCTTCCTTTTCTGAGCG  
CTTCCCTCTTAGGCCTCAGGGCAGTTTGATCTGTGGGGAGAAAGAGCAGCCATCGCTGAGCCTGCCTTTTAAAT  
ATATGTGTATTTCTTAGCCCCACTCTAAGAAATCTATGTTCTGAGTTTGCCCCCTGCCCTCCACTCCTTCCC  
CTTTTCCCTCTAAACCTTCTCCCATCTCTTTCAAATCTTTTCCCAGAAAGGCAGGCTTCAACCAGCCACTCCA  
GCTTTGTGTCTTCTCTCAATTACATAGCAATTTCTCCTTCCACCATCATGGGGAAGCTGGCTCTGCTTTTGCC  
TTTGTATCACCAACACAACAGATAGAATTTAAATATAAGTATATGGTGTGCGTGTGTATGTATGTGTATGTATA  
TGCATGCATGTGTATAAAGATGCACATGCGTACATATACATAACATACACACAATATGTATTCTAGCAAAATAA  
AATCTCTAAGGTACTTGGTTATCCAGTGCAGTGCACCGGAATAAAGAGAATTTGTAGGCGTATACAGCTTTAAAT  
GATTTATTTTTTATGAAAATGTTAACTGATGAGATTATATCTACATACGTGTGTTATGTGTGTGGATATAGATGC  
ACACATATCTGTACATATACATGTGAGTGTACATATATACACATATACACATCTATGTATGGATATGTGTGTATA  
CACATATACACATCTCTGTCCAAAATTTCTCAAAGATATGGGGATTTTTTCATGAATCCATGTGGATGAATGAG  
GTGTCTCCTTTCCATACCCAGTCTCACCTTCTCCCCACCCTACCTCACCTCTTCTCAGGCACCCCTCTTCCCCAG  
CTGTCTGCCAGCCCTTCTCGTACAGGGTGGCTCCTTTGAAGTGAGTAATAGGGAAGGTGCTCTCTGCCACAG  
CTTGACGATGGTCTTGACTGAATGTACTGTTCTGTAGCGTTACTTCTCCTGTGGTCAGTAAGTTGCCAGAG  
AGAAGGAACAAAGGTCTGGAGTTTACAGAATGTCTGTTTTTAAAGTCACCTTATGCGTTTTTCACTTTTTTCTTT  
TTTAAAGAAAAGAGTACCATTTTTGTTTTGTTTTGTTTTGATTTTTGGTGGTGGATAAATAATACTAAAGGAC  
TCTAGTGGAAGGGGGGATATCGAAGAGCAGGGGGTTGTGAATTTCCAGGTACTTGAGCTTTTTGTAGAAGTAGA  
GAGAAGAAGATGAAGTTTGCCAGGAGGGCCATATTTTTTCAGCTGAAGGGTAAAATCTTTCTTTCAGAGACAG

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**FIGURE 124B**

TATTTTGCTGAATACTTTTTATAATGTGATGATTATTAAGCAAAAATTTTGGTCACTTCCAAGCTAGAAGG  
AGGAATCAGATACCCTTTAATATTTTTCTCGCTCCTTCTGGTATATGCATGTCCTGCTGATAATTGAGTTT  
TCCTTTGTTTTAATAAACTGTTCTCAGACATTAAGCTAACTAAGAGAAAAATACTTTGTTGCCAAAAGGTTG  
TGCTATCCAGATTTTTTATATGTCTGCATGTTTAAAAAAAAAAAAAGCAACAAAAGAAAATGCACTCTAACTTATG  
TGAAGTGAAGAGAAAAAATCAGGTTTTAAACAGGAAAACCTATGGGGAATGATATTTTTTGAAAGACTTTTGTAT  
AAAGTTGAGTACTTAGAAAAAGACAAACCAGATGTAATATATTTTGTGGATGTTTTATTTCTTGGATTTATAG  
TACCTTATACTAAGGTTAAAAAATATGCTTGATATTGTGAAAAGGTGAAATTCCTCACCACATTTTCAATTTGCT  
CCTTTGTCATATTGTAATGCCAATATAATATAGTTAATGAAAACAGCATTTTTAAAAACCGAAATATTGAAATGG  
TGTAATGTTGTACCATTTGCACTGTGAGCAAATGCTAATACAGTAAATATATTGTGTTTGCTGACAATCAAAAAA  
AAAAAAAAAAAAAA

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**FIGURE 125**

MTGKLAEKLPVTMSGLLNQLPDNLYPEEIPSA LNLFSGSSDSVVHYNQMATENVMDIGLTNEKPNPELSYSGSFQ  
PAPGNKTVTYLGKFAFDSPSNWCQDNIIISLMSAGILGVPPASGALSTQTSTASMVQPPQGDVEAMYPALPPYSNC  
GDLYSEPVSEFHD PQGNPGLAYSPQDYQSAKPALDSNLFPMIPDYNLYHHPNDMGSIPEHKPFQGMDFIRVNPFFT  
TPLETIKAFKDKQIHGFGSLPQPPLTLKPIRPRKYPNRPSKTPLHERPHACPAEGCDRRFSRSDDELTRHLRIHT  
GHKPFQCRICMRSFSRSDHLTTHIRHTGKPFACEFCGRKFARSDEKRRHAKIHLKQKEKKAEGGAPSASSAP  
PVSLAPVVTCA

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**FIGURE 126**

GGAATTCCAATGAATGAATGAATGAATGAGTGAATGAATCAACGAAGGAGTGAGTCAAGGCCCGGGAACACAGA  
CTCCAAGCCTACGCAGAGCCCGGAAGGGGGATTCCGAGGGGCGGGGCTCTTTCCGGAAGCGCCCGCGGGG  
CGGGGAGGGGGCGGGGCCATCCGCGTGAGGCGACCCTGTTGGTCCGGAGGGGCGGGGCGAGGAGGAGACGGCCT  
TGGGCGGTTCGGCTGCCACAGTAACCGCTGGGTGGACCTGGCCAGCGCTCCGAACCTTGTCCTCGCTGCGCGCC  
GGCCCCCTCGGAGCCCCACAGCCCGGAAGGAGGCGCGCGGGGCGGGGCGCCGCTCTGCCAAGCGGACCCGCAA  
CCCGGAAAGGCGGCGCGGCGGAGCCTGGAGCCGGA TCCTGCTCAGACCGGGCCCCGGCCGGCCAGAGCCGCGGGC  
ATGTCGGAGGCGCGGAAGGGGCCGACGAGGCGGAGGAGAGCCAGTACGACTCTGGCATTGAGTCTCTGCGCTCT  
CTGCGCTCCCTACCCGAGTCCACCTCGGCTCCAGCCTCCGGGGCCCTCGGACGGCAGCCCCCAGCCCTGCACCCAT  
CCTCCGGGACCCGTCAAGGAACCACAGGAGAAGGAAGACGCGGATGGGGAGCGGGCTGATTCCACCTATGGCTCC  
TCCTCGCTCACCTACACCTGTCTTGCTGGGGGGCCCCGAGGCTGAGGACCCGCCCCCAGCCTGCCACTCCCC  
CACGTGGGGGCGCTGAGCCCTCAGCAGCTGGAAGCACTCACTTACATCTCCGAGGACGGAGACAGCTGGTCCAC  
CTGGCAGTGATTATGAGGCCCCAGCGGTGCTGCTCTGTTGCCTGGCTTTGCTGCCCCAGGAGGTCTGGACATT  
CAAAATAACCTTTACCAGACAGCACTCCATCTGGCTGTACATCTGGACCAACCGGGCGCAGTTCGGGCACTGGTG  
CTGAAGGGGGCCAGCCGGGCACTACAGGACCGGCA TGGAGACACAGCCCTTCATGTGGCCTGCCAGCGCCAGTCT  
TGGCCTGTGCCCCTGCTGCTGGAAGGGCGGGCCAGAGCCAGGCAGAGGAACATCTCACTCTCTGGACCTCCAG  
CTGCAAAACTGGCAAGGTCTGGCTTGCTCCACAT TGCCACCCTTCAGAAGAACCAACCACTCATGGAATTGCTG  
CTTCGGAATGGAGCTGACATTGATGTGCAGGAGGGCTCCAGTGGTAAGACAGCGCTGCACCTGGCTGTGGAACC  
CAAGAGCGGGGCTGGTACAGTTCCTGCTCCAGGCTGGTGCCAGGTAGATGCCCGCATGCTGAACGGGTGCACA  
CCCCTGCACCTGGCAGCTGGCCGGGTCTCATGGGCATCTCATCCACTCTGTGCAAGGCGGGTGCTGACTCCCTG  
CTGCGGAATGTGGAGGATGAGACGCCCCAGGACCT GACTGAGGAATCCCTTGTCCTTTTGCCCTTTGATGACCTG  
AAGATCTCAGGGAAACTGCTGCTGTGTACCGAC TGAAGCCAGGCAGGGTCTGGGATCCTCAGGGCTCCACCTCTC  
CATCTGGAAGCCGGAGCCATAACTGCTGCAGTTTGGGCCCAGGCTATGTGCTCTTCTGGTGCCCTAGGGACTGCT  
GTGGCCAGAGCCTGGGGCCAGCCAGTACAGTCTGAGCCGAGGAGGAGGGACTGCAAGTGGAAGAGAGCCAGTCT  
GGAAGGAAGAGCTTTCCAGGTGGACAGGGCTTCTTGGAAGACCCCCAAAGCCCCAGGTATCCTGGGTGAAGCCTG  
TTTGCCTCTCTTGAAAATGGCAGGTGCTCTTGT TTTACCCATGTTGGGTCAGCCTGAAACTGCCAACCAGTAGGA  
AGCATGGACTCTCCTGAGTGAGAAGAGACTGAAATAGGAGCAAGCAGAACCCTGAGAGGTGTCCATCTTCTTGCT  
GTTGAGGACCCTGAAACACCGTTGTTTAAAGACTTCACACAGAAGGCTCTGAACTGAGCCACTGGGGAAGGGAAG  
TTTCAGTAACATGACACTAAAATGGCAGAGACGTTAAAAAAA

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**FIGURE 127**

MNQRRSESRPGNHRLQAYAEPGKGDSGGAGPLSGSARRGRGGGGAIRVRRPCWSSGAGRGGRPWAVRLPTVTAG  
WTWPALRTLSSLRAGPSEPHSPGRRRPRAGRPLCQADPQPGKAARRSLEPDPAQTGPRPARAAGMSEARKGPDEA  
EESQYDSGIESLRSLRSLPESTSAPASGPSDGSPPCTHPPGPVKEPQEKEDADGERADSTYGSSSLTYTTLG  
GPEAEDPPRLPLPHVGALSPQQLALTYI SEDGDTLVHLAVIHEAPAVLLCCLALLPQEVLDIQNNLYQTALHL  
AVHLDQPGAVRALVLKGASRALQDRHGD TALHVACQRQSWPVPAACWKGGPEPGRGTSHSLDLQLQNWQGLACLH  
IATLQKNQPLMELLRRNGADIDVQEGSSGKTALHLAVETQERGLVQFLLQAGAQVDARMLNGCTPLHLAAGRGLM  
GISSTLCKAGADSLRNVEDETPQDLTEESLVLLPFDDLKISGKLLLCD

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**FIGURE 128A**

GAATTCGGCACGAGACGGTTTCCTCCAGAGGTCTCCGCCCTCTGCCCTATATTCCCAGAGCTCGAGTCTGATC  
CGGGCCTTGCCGGGCACCCTGGAAAGGCGGGGGTGATAGTACAGATGGAGACGCAACTGCAGAGCATTTCGAAG  
AGGTGGTGAAAAACGGAAGTTATAGAAGAGGCTTTTCTGGCATGTTTATGGATACTCCTGAAGATGAGAAAACAA  
AACTAATTAGCTGTTTGGGGGCCTTCAGACAGTTTGGGGTGGTCTTTCTCAGGAGTCTCATGAACAGTGTATCC  
AGTGGATTGTTAAGTTTATTCATGGTCAGCATAGTCTTAAAGAATTTCTTTCTTTATGACTGCTTAGCAATGG  
CAGTTGAGACTGGTCTCCTTCCACCCAGGCTGGTTTGTGAATCCCTGATAAACTCTGACACTCTTGAGTGGGAAA  
GAACACAGCTTTGGGCCTTAACATTTAACTGGTTTGGGAAATAATTGGGGGAGTGGATAACAAGGGTGTTCGAG  
ATCTCTTAAAGTGATTTTGGAGAAGATTTTGACAATTCCTAATACAGTGAGCTCTGCTGTTGTACAGCAGCTTC  
TGGCAGCAAGAGAGGTTATAGCATATATCTTGGAAAGAAATGCCTGCTTATTACCAGCCTATTTTGCAGTCACTG  
AGATCAGGAACTGTATCCTGAAGGCAAACCTTCCACTGCTTACTTGGAAACCTAGTATCAGACTTTGTGGATA  
CCTTCAGGCCACAGCAAGGATAAACTCCATTTGTGGTCGCTGTAGTCTTCTGCCAGTTGTAAATAATTTCGGGTG  
CCATTTGTAATTCATGGAACTGGATCCTGCTACTCTTCGTTTTCTTTGAAAGGCCTTTTGCCATATGATAAGG  
ATCTGTTTGAACCACAGACTGCTTTGTTGAGATATGATTGGAGCAGCCTTATTCCAGGGATATGGTCTGCAATA  
TGCTAGGTTTAAATAAGCAGCACAAGCAGCGCTGCCCTGTGCTGGAGGACCAGTTGGTGGATCTGGTTGTTTATG  
CCATGGAGCGATCTGAGACCGAGGAGAAGTTTGACGATGGGGGAACAAGCCAACCTCCTGTGCAGCATCTCTCAA  
GTCAGCTCATTTTCTTGTGCTTTTCCAGTTTGAAGTTTTCCACATATGGTGCTTTCTCTTCATCAGAAGTTAG  
CAGGGCGAGGACTGATTAAAGGCAGAGATCATCTTATGTGGGTTCTCCTGCAATTCATTTCTGGAAGTATTCAGA  
AAAATGCACTAGCTGATTTTCTCCCTGTGATGAAGCTCTTCGACTTGCTATACCCAGAAAAAGAATATATCCAG  
TTCTGATATTAACAAACCCAGTCAACCCATGCCTTTGCAATGACCTGTATTTGGATTTCATCTCAATAGAAAAG  
CTCAAAATGACAACCTCCAAGCTACAGATTCCAATACCTCATTCCCTAAGACTTCACCATGAGTTCCTGCAGCAGA  
GTCTAAGAAATAAAAGTTTACAGATGAATGACTATAAGATTGCTCTATTGTGTAATGCATACTCTACAAATTCAG  
AATGTTTTACATTACCCATGGGAGCTCTGGTAGAACTATTTATGGAAATGGAATTATGAGGATACCTCTCCCTG  
GAACAACTGTATGGCTTCAGGATCTATTACCCCTTACCTATGAACCTCCTGGATTCACTGACAGTTCATGCCA  
AAATGAGCCTTATTACAGCATTCGAACCCAGGGTGATAAACTTGCTCATGCAAAGTCCAGTGTGGCCTTGGCTC  
CAGCCCTAGTGAAACTTACAGTCGTTTATTGGTCTATATGGAAATAGAGTCTTTGGGCATCAAAGGATTTATCA  
GTCAGCTTTTGCCAACTGTTTTCAAATCAGATGCAATGGGGGATCTTACACACACTCCTTGAGATGTTTAGCTACC  
GGATGCATCATATTACGCTCATTACAGAGTTCAGCTCCTGAGTCATCTTCATACTTTGGCTGCAGTTGCACAAA  
CAAACCAGAACAGCTCCATCTTTGTGTGCGAGAGCACTGCTCTCAGGCTTATAACAGCATTAGGTAGCTCAGAGG  
TACAACCGCAGTTTACACGCTTCCTTAGTGATCCCAAAACAGTGCTCTCAGCAGAATCTGAAGAACTGAACCGAG  
CCTTGATATTGACCTTGGCTAGAGCAACTCATGTAACAGATTTTTTTACAGGCTCTGATTCAATTCAGGGAACTT  
GGTGTAAGACATACTTCAGACCATCATGAGTTTCACTCCTCATAATTGGGCTTCACACACCCTGAGCTGTTTTT  
CAGGCCCACTACAGGCATTCTTCAAACAAAATAATGTGCCTCAGGAAAGCCGTTTTAATCTGAAAAAAATGTGG  
AGGAGGAGTATAGGAAGTGGAAGTCAATGAGCAACGAAACGACATTATTACCCACTTCTCTATGCAGGGCTCCC  
CTCCTCTCTTTCTTTGTCTTCTCTGGAAAAATGCTCTTGGAAACAGATCATATTAATCAGATTGGCTATAGAGTAT  
TAGAGAGAATTGGAGCCAGGGCCTTGGTAGCCCATGTGAGGACATTTGCAGATTTCTGGTATATGAGTTTCTA  
CATCAGCAGGGGTCAGCAACTCAATAAATGCATTGAAATTCTTAATGACATGGTATGGAAGTATAACATTGTTA  
CACTGGACAGATTAATTCTCTGCCTGGCCATGCGTAGTCACGAAGGAAATGAAGCCAGGTTTGTTATTTCAATA  
TTCAGTTGCTGTTACTCAAACCAAACGATTTTGAATAATCGAGTAAGTGACTTTGTGAAGGAAAATTCAGAGC  
ACTGGTTACAGAATGACTGGCACACCAAGCACATGAATTATCACAAGAAATATCCAGAGAAGTTGTATTTGAGG  
GCCTCGCGGAACAGGTGGATCCTCCCTGTACAGATCCAGTCTCCTATCTGCCATCTATTTTGGGAATGTGTGTC  
TTCGATTCTTCCAGTATTTGATATAGTAATCCACAGATTTTATAGATTGCTTCCGGTATCCAAATCACTGGAGA  
CTCTACTGGATCATCTAGGAGGCTTATATAAATTTATGATCGTCCAGTGACTTATCTGTATAACACTCTGCACT  
ATTATGAAATGCACCTGAGAGACCGCGCATTTCTCAAACGAAACCTCGTCCATGCGATCATTGGCTCTCTGAAGG  
ATAATCGACCGCAGGGCTGGTGTCTAAGTGACACTTACCTGAAATGCGCTATGAATGCACGAGAGGAAAATCCTT  
GGGTTCCAGATGACACCTACTATTGCAGATTGATTGGCAGACTAGTCGATACGATGGCTGGCAAATCTCCTGGTC  
CCTTTCAAACCTGTGACTGGAGATTCAATGAGTTTCCCAACCCAGCTGCCCATGCTCTCCATGTTACTTGTGTGG  
AGCTCATGGCCTTGGCAGTTTTCAGGCAAAGAAGTTGGGAATGCCCTTCTAAATGTTGTCTTAAAGAGTCAGCCTT  
TAGTGCCAAGAGAGAACATTACAGCATGGATGAATGCAATTGGTTTGATCATCACTGCCCTACCAGAGCCATATT

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**FIGURE 128B**

GGATTGTTCTTCATGATCGAATTGTGAGTGTTCATCAGCAGCCCCAGCTTGACGTCTGAAACAGAGTGGGTGGCT  
ATCCATTCCGCCTCTTTGATTTCACTGCCTGTCATCAGTCGTAAGTGTAGCTATACGTTAGCTC  
TTGCACATGCTGTGTGGCACCATTCTAGCATCGGACAACCTTTCTCTCATTCCAAAGTTTCTTACTGAAGTACTTC  
TTCCTATAGTGAAGACCGAATTCCAGTTGCTTTATGTATACCATCTTGTTGGACCATTTTTACAAAGATTTTCAGC  
AAGAGAGAACTCGTTGTATGATAGAGATTGGTGTGGCGTTTTATGACATGCTGCTGAATGTTGACCAGTGTAGCA  
CCCATTTAAATTACATGGATCCCATCTGTGACTTCCTCTATCACATGAAGTATATGTTTACTGGTGACAGCGTGA  
AAGAGCAAGTAGAGAAGATTATCTGTAACCTTAAACCAGCTTTAAACCTTCGTCTTCGATTCATCACACACATTA  
GCAAGATGGAGCCAGCTGCAGTGCCTCCACAAGCCATGAACAGTGGGTCTCCAGCACCTCAGTCTAATCAGGTGC  
CCGTGTCTTTACCAGTAACTCAGTGAAGCCAGACTGTACTGTGGAGAAAGTAGAAATATATCCGTCTTTGAGAG  
TGGACTCAAACCTTTTAAATCTGAATGCGATCACACTGTAGTGATATAGTAGAAGCAGTGATGATATTCAGATTG  
TTTTATTTTGATTCAAATGATGAATCTGTTGACACCTTATAACTCCCATCTCCCTATCTATATTTTTGTCTCTAA  
GAGATCAAGTAAGATACATGTTGTTTCATATTCATAACAACCTATTAGAGCTATGTAGGAACATAGAGGTATCTGT  
GATCAAATGACTTGTCAATTGGCACTTTTCAGTCTTTCTTATTCTAGCCGTTGTTTTGTTTGTATTTTTTATTATT  
AATGACATATTTAGTCTTCAGATATATTATTTTAAAGGCACCACACATGTAAACAGTTATTACAAATATTTTAT  
ACATAAATCTCTTGGTAGATTTTCAGAATAATAGAGATTTATATCAAGAAAAGGAATCTAGATTTTGTGTCATTG  
TAGGAGCAAACAAGGCTTCATATTCTTTTTTAAATGACTTGAAATTTTATTATAAATTTCCATAGTTTCTATCAA  
GGTCAACTGGCAGTTTTATTACCTTTGCTATGGACTTGAACCTTACTGTATAAAATTAGTTGGAAGCCATGTAAGA  
AAATAACATCTGAAAATTCTTGAACCTTAAATCATGCTTAAATGGTTGATTCTCCAATTTCTTTTTTAAAAATA  
AGTTAATTGCTTTTGCAGGTTGACACTCTCACCTGACAGATGATGTAATTCTTCAATTTTATAATCTTAAATTT  
TTTAAATTTTATATTTGTAAATACAGTACACATTTTATTTCTTGGATTTTGAAGACATTGTTAATTTTGGGGGA  
ATTGGCATTGCGAAAGACTTGAAAATAATGAGTAAAGTCTGCTGAATGAATAAAAAAAAAAAAAAAAAAACTCGA  
G



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**FIGURE 129**

METQLQSIFEEVVKTEVIEEAFFPGMFMDTPEDKTKLISCLGAFRQFWGGLSQESHEQCIQWIVKFIHGQHSPKR  
ISFLYDCLAMAVETGLLPRLVCESLNSDTLEWERTQLWALTFKLVRKIIGGVNDKNGVRDLLKVILEKILTIPN  
TVSSAVVQQLLAAREVIAIYLERNACLLPAYFAVTEIRKLYPEGKLPHWLLGNLVSDFVDTFRPTARINSICGR  
SLLPVVNNNSGAICNSWKLDPATLRFPLKGLLPYDKDLFEPQTALLRYVLEQPYSRDMVCNMLGLNKQHKQRCPL  
EDQLVDLVVYAMERSETEEFDDGGTSQLLWQHLSQLIFFVLFQFASFPHMVLSLHQKLAGRGLIKGRDHLMWV  
LLQFISGSIQKNALADFLPVMKLFDLLYPEKEYIPVPDINKPQSTHAFAMTCIWIHLNRKAQNDSKLQIPIPHS  
LRLHHEFLQQSLRNKSLQMNDYKIALLCNAYSTNSECFITLPMGALVETIYGNGIMRIPLPGTNCMASGSITPLPM  
NLLDSLTVHAKMSLIHSIATRVIKLAHAKSSVALAPALVETYSRLLVYMEIESLGIKGFISQLLPTVFKSHAWGI  
LHTLLEMFSYRMHHIOPHYRVQLLSHLHTLAAVAQTNQNLHLCVESTALRLITALGSSEVQPQFTRFLSDPKTV  
LSAESEELNRALILTLARATHVTDFFTGSDSIQGTWCKDILQTIMSFTPHNWASHTLSCFFGPLQAFFKQNNVPQ  
ESRFLNKKNVEEEYRKWKSMSNENDIITHFSMQGSPPLFLCLLWKMLLETDHINQIGYRVLERIGARALVAHVRT  
FADFLVYEFSTSAGGQQLNKCIEILNDMVWKYNIVTLDRILCLAMRSHEGNEAQVCYFIIQLLLLKPNDFRNRV  
SDFVKENSPEHWLQNDWHTKHMNYHKKYPEKLYFEGLAEQVDPCTDPVSYLPYFGNVCLRFLPVFDIVIHRL  
ELLPVSKSLETLLDHLGGLYKFHDRPVTYLYNTLHYEMHLRDRAFLKRKLVAHAIIGSLKDNRPQGWCLSDTYLK  
CAMNAREENPWVPDDTYCRLIGRLVDTMAGKSPGPFPCDWRFNFPNPAHALHVTCVELMALAVSGKEVGNA  
LLNVVLKSQPLVPRENITAWMNAIGLIITALPEPYWIVLHDRVSVISSPSLTSETEWVGYPFRLFDFTACHQSY  
SEMSCSYTLALAHAVWHHSSIGQLSLIPKFLTEVLLPIVKTEFQLLYVYHLVGPFLQRFQQRTRCMIEIGVAFY  
DMLLNVDQCSTHLYNDPICYDFLYHMKYMTGDSVKEQVEKIIICNLKPALKLRLRFITHISKMEPAAVPPQAMNS  
GSPAPQSNQVPVSLPVTQ

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**FIGURE 130**

GGCCCCAAAGCCGCTCTAGCGCGCCGGGCGTCTTCTTACTTCCGCTGCCGCCGCCGCCACATCCCAGGACCCG  
ACGGGCCCGCGCGCGGAGGCTCGGGGCAAGGTGGGGCGGGCCTCCCGAGCTCCCAGGACCCCGCGCGCTTCGCC  
CACAGGCCCCGGCGAAGCCCGACCCGCGCGGGCGCCCCAGGGCCAGGGGAGGAGCCTAAGGACCCGGACGAGCGCC  
GCTCCAGTAGGTGACAAGAGGAAACAAGAACCTCAGTTCAGGGGAAACACAGCAAGGAAATGTGAGCCCCAGGCT  
GCAGAAGGAAGAGTCAGTGAATGGCTGCGGTGTGACAACATGACCACCAGTGGCTTCTGCTGGCCGCATGCTTT  
TGGGTGATTTTCATGTTTCATGGTGGCTAGCAAGTTCATCACGTTGACCTTTAAAGACCCAGATGTGTACAGTGCC  
AAACAGGAGTTTCTGTTCTGACAACCATGCCGGAAGTGAGGAAGTTGCCAGAAGAGAAGCACATTCTGAGGAA  
CTGAAGCCAACCTGGGAAGGAGCTTCCAGACAGCCAGCTCGTTCAGCCCCCTGGTCTACATGGAGCGCCTGGAACCTC  
ATCAGAAACGTCTGCAGGGATGATGCCCTGAAGAATCTCTCGCACACTCCTGTCTCCAAGTTTGTCTGGACCGA  
ATATTTGTCTGTGACAAGCACAAAGATTCTTTTCTGCCAGACTCCCAAAGTGGGCAACACCCAGTGGAAGAAAGTG  
CTGATTGTTCTAAATGGAGCATTTTCTTCCATTGAGGAGATCCCCGAAAACGTGGTGCACGACCACGAGAAGAAC  
GGCCTTCTCGGCTCTCTTCTTTCAGTGATGCAGAAATTCAGAAGCGATTGAAAACATACTTCAAGTTTTTTATT  
GTAAGAGATCCCTTCGAAAGACTTATTCTGCATTAAAGGATAAATTTGTTTACAATCCCCGGTTTGAGCCTTGG  
TACAGGCATGAGATTGCTCCTGGCATCATCAGAAAATACAGGAGGAACCGGACAGAGACGCGGGGGATCCAGTTT  
GAAGATTTTCGTGCGCTACCTCGGCGATCCGAACCACAGATGGCTAGACCTTCAGTTTGGGGACCACATCATTAC  
TGGGTGACGTATGTAGAGCTCTGTGCTCCCTGTGAGATAATGTACAGTGTGATTGGACACCACGAGACCCTGGAG  
GACGATGCCCCATACATCTTAAAGAGGCTGGCATTGACCACCTGGTGTCTATACCCGACTATCCCTCCGGGCATT  
ACCGTGTATAACAGAACCAAGGTGGAGCACTATTTCTGGGCATCAGCAAACGAGACATCCGACGCCTGTATGCC  
CGTTTTCGAAGGGGACTTTAAGCTCTTTGGGTACCAGAAACCAGACTTTTTTGCTAAACTAATGCATAAGACCTATG  
AATTCAAATATCTTTATTAGACCTGGGGCTAACAGGTGAAGATCTGAGCCCAGAAATGACCCTTCTCCACCAC  
ACCCCTCCTTTGAGGATGCCCCGGGTCTCCACAGGCCTGTGAGTTGCCTCGGCATATGACGCAGAACCCCACT  
GTTACAACCTTAGTTTGGATGTAAGATGCTCTGAGGACCCTGCCACACCCCTGCGTGCATTAGGATGTCGCTGGC  
CTTTGCTCACCTCAGAGGGGAGAAAAGGCTAAAGATTGTCAGTTTGACAGCCAGCAGGGAGGAAGCATCACACA  
GCGTTAGGAGCCGTTTCTTTCAGGTGTTAAGGAAGGGGATGCCCCTGAGGTTCTCCTGGCTAGTCGGGGTGGCTT  
CACCCATCACTGGTGGGTGTCAGGAACAGCACCCAGGACTCTGAGGAGGGACAGAGAAGCAAGGGGGCTGCTGAA  
ATCGCAGAGACTTTTGCAGCATCAGATCTGAGGAGTAAACGGCACCTCTGGCCTTCATCTTGGTGCTGCGACAA  
TTGTGGAGGCAAAGCATTCTTTCTGTGACTATTTTGTTCCTGTAGACAGTCAGCGATGGCCAGAGGGTGGTGTTG  
TGTCAGGGGTCCATCTTTCCAGAATCCATGCCTGTGTAATGCTGGTCCATGCTTCTGAACCTGTGTCTGCCAAG  
CGCCTATTTTCATTTCAGCACAAAGACATACGATTTTGAAGGTGAGGGGAGGGGAGGCTTTTTTCTACCTGAGAAGGG  
GAGTGTCTTTGAGGGCCTTAAAGGACCATGGCCCCAGGAATGGGGGCGCTGGTTGGGCTTGGAGCTCAGGCTGCT  
GTGGATCCCGGCGCATCAGTTCGACTTGCCCTTACCTGGGTGGACAGCAGTGAATCTCCACCTGTCTTCTCCAGG  
GAGCTCCCATGTTGGGGCTGAAGACGAGCAGGGGCAACCTGCCAGCATCACAGAATTCAGTGTAGTTTATACATT  
TCGATTCTTTTCATCTCAGCAAAATGGGCACTGCCAGAGCCATTTCTGATCACACCACCATCCTGGACCATGTGA  
CTGGAAGGTGGGTAACCAAGTTTACCAGCAATAAAACCCAGCGCCAGGTAGCCTCCAGCAGTGCGGCTTCTCGG  
CAACAAGGTAGGCCCTGGTGCAGGGCAAGCCGACGACCATTTTCAGATACCGTCCACAGCCAGGACCGCTGAGA  
ACTGGGACAGTTTCTGGGATGAGTGCCAGCCTGAGCCTGCATGGTGCCGCCGAGCCCGGGGTGGAGGAGGGAGC  
CAGGCTTCGCTTCAAGGCGGCCTCTACCTTTTCTCAGAAATGGTTTCTGATTGTGTCAATGTGAAAGTTAAATAA  
AATTTATGTGCCAACCTGAAAAAAAAAAAAA

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**FIGURE 131**

MHHQWLLLAACFWVIFMFMVASKFITLTFKDPDVYSAKQEFLLTTMPEVRKLP EEKHIPEELKPTGKELPDSQL  
VQPLVYMERLELIRNVCRRDDALKNLSHTPVSKFVLDRIFVCDKHKILFCQTPKVGNTQWKKVLIVLNGAFSSIEE  
IPENVVHDHEKNGLPRLSSFSDAEIQKRLKTYFKFFIVRDPFERLISAFKDKFVHNPRFEPWYRHEIAPGIIRKY  
RRNRTETRGIQFEDFVRYLGDPNHRWLDLQFGDHI IHWVTYVELCAPCEIMYSVIGHHETLEDDAPYILKEAGID  
HLVSYPTIPPGITVYNRTKVEHYFLGISKRDIRRLYARFEGDFKLFQKPDFFLN

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**FIGURE 132**

GGAATTCCTGATATACACCTGGACCACCACCAATGGATATACAAATGGCAAACAATTTTACTCCGCCCTCTGCA  
ACTCCTCAGGGAAATGACTGTGACCTCTATGCACATCACAGCACGGCCAGGATAGTAATGCCTCTGCATTACAGC  
CTCGTCTTCATCATTGGGCTCGTGGGAACTTACTAGCCTTGGTCGTCATTGTTCAAAACAGGAAAAAATCAAC  
TCTACCACCCTCTATTCAACAAATTTGGTGATTTCCTGATATACTTTTTACCACCGCTTTGCCTACACGAATAGCC  
TACTATGCAATGGGCTTTGACTGGAGAATCGGAGATGCCTTGTGTAGGATAACTGCGCTAGTGTTTTACATCAAC  
ACATATGCAGGTGTGAACCTTTATGACCTGCCTGAGTATTGACCGCTTCATTGCTGTGGTGCACCCTCTACGCTAC  
AACAAGATAAAAAGGATTGAACATGCAAAGGCGTGTGCATATTTGTCTGGATTCTAGTATTTGCTCAGACACTC  
CCACTCCTCATCAACCCTATGTCAAAGCAGGAGGCTGAAAGGATTACATGCATGGAGTATCCAACTTTGAAGAA  
ACTAAATCTCTTCCCTGGATTCTGCTTGGGGCATGTTTCATAGGATATGTACTTCCACTTATAATCATTCTCATC  
TGCTATTCTCAGATCTGCTGCAAACCTTTCAGAACTGCCAAACAAAACCCACTCACTGAGAAATCTGGTGTAAC  
AAAAAGGCTCTCAACACAATTATTCTTATTATTGTTGTGTTTGTCTCTGTTTCACACCTTACCATGTTGCAATT  
ATTCAACATATGATTAAGAAGCTTCGTTTCTCTAATTTCTGGAATGTAGCCAAAGACATTCGTTCCAGATTTCT  
CTGCACTTTACAGTATGCCTGATGAACCTCAATTGCTGCATGGACCCTTTTATCTACTTCTTTGCATGTAAAGGG  
TATAAGAGAAAAGTTATGAGGATGCTGAAACGGCAAGTCAGTGTATCGATTTCTAGTGCTGTGAAGTCAGCCCCT  
GAAGAAAATTCACGTGAAATGACAGAAACGCAGATGATGATACATTCCAAGTCTTCAAATGGAAAGTGAATGGA  
TTGTATTTTGGTTTATAGTGACGTAACTGTATGACAACTTTGCAGGACTTCCCTTATAAAGCAAAATAATTGT  
TCAGCTTCCAATTAGTATTCTTTTATATTCTTTTCATTGGGCACTTTCCCATCTCCAACCTCGGAAGTAAGCCCAA  
GAGAACAACATAAAGCAAACAACATAAAGCACAAATAAAATGCAAATAAATATTTTCATTTTATTTGTAAACGA  
ATACACCAAAAAGGAGGCGCTCTTAATAACTCCCAATGTAAAAAGTTTTGTTTTAATAAAAAATTTAATTATTATT  
TCTTGCCAACAAATGGCTAGAAAGGACTGAATAGATTATATATTGCCAGATGTTAATACTGTAACATACTTTTTTA  
AATAACATATTTCTTAAATCCAAATTTCTCTCAATGTTAGATTTAATTCCCTCAATAACACCAATGTTTTGTTTT  
GTTTCGTTCTGGGTCATAAACTTTGTTAAGGAACCTTTTTGGAATAAAGAGCAGGATGCTGC

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**FIGURE 133**

MDIQMANNFPPSATPQGNDCLYAAHSTARIVMPLHYSLVFIIGLVGNLLALVVIVQNRKKINSTTLYSTNLVI  
SDILFTTALPTRIAYYAMGFDWRIGDALCRITALVFYINTYAGVNFMTCLSIDRFIAVVHPLRYNKKIKRIEHAKG  
VCIFVWILVFAQTLPELLINPMSKQEAERITCMEYPNFEETKSLPWILLGACFIGYVLPLIIILICYSQICCKLFR  
TAKQNPLTEKSGVNKKALNTIILIIIVFVLCFTPYHVAIIQHMIKKLRFSNFLECSQRHSFQISLHFTVCLMNFN  
CCMDPFIYFFACKGYKRKVMRMLKRQVSVSISAVKSAPEENSREMTETQMMIHSKSSNGK

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**FIGURE 134**

CGCGGCTCAGTAATTGAAGGCCTGAAACGCCCATGTGCCACTGACTAGGAGGCTTCCCTGCTGCGGCACCTTCATG  
ACCCAGCGGCGCGCGGCCAGTGAAGCCACCGTGGTGTCCAGCATGGCCGCGCTGCTCCTGGGCGCGGTGCTGCT  
GGTGGCCAGCCCCAGCTAGTGCCTTCCCGCCCCGCGAGCTAGGCCAGCAGGAGCTTCTGCGGAAAGCGGGGAC  
CCTCCAGGATGACGTCCGCGATGGCGTGGCCCCAAACGGCTCTGCCAGCAGTTGCCGCAGACCATCATCATCGG  
CGTGCGCAAGGGCGGCACGCGCGCACTGCTGGAGATGCTCAGCCTGCACCCGACGTGGCGGCCGCGGAGAACGA  
GGTCCACTTCTTCGACTGGGAGGAGCATTACAGCCACGGCTTGGGCTGGTACCTCAGCCAGATGCCCTTCTCCTG  
GCCACACCAGCTCACAGTGGAGAAGACCCCCGCGTATTTCACGTCGCCCAAAGTGCCTGAGCGAGTCTACAGCAT  
GAACCCGTCCATCCGGCTGCTGCTCATCCTGCGAGACCCGTCGGAGCGCGTGCTATCTGACTACACCCAAGTGTT  
CTACAACCACATGCAGAAGCACAAAGCCCTACCCGTCCATCGAGGAGTTCTTGGTGCGGATGGCAGGCTCAATGT  
GGACTACAAGGCCCTCAACCGCAGCCTCTACCACGTGCACATGCAGAACTGGCTGCGCTTTTTCCCGCTGCGCCA  
CATCCACATTGTGGACGGCGACCGCCTCATCAGGGACCCCTTCCCTGAGATCCAAAAGGTCGAGAGGTTTCCTAAA  
GCTGTCGCCGAGATCAATGCTTCGAACTTCTACTTTAACAAAACCAAGGGCTTTTACTGCCTGCGGGACAGCGG  
CCGGGACCGCTGCTTACATGAGTCCAAAGGCCGGGCGCACCCCCAAGTCGATCCCAAACCTACTCAATAAACTGCA  
CGAATATTTTCATGAGCCAAATAAGAAGTTCTTCGAGCTTGTGGCAGAACATTTGACTGGCACTTGATTTGCAAT  
AAGCTAAGCTCAGAACTTTCTACTGTAAAGTTCTGGTGATCATCTGAGGGGAAAAAGAATTTTAAAAAAGCATT  
TAAGGTATAATTTATTTGTAAAATCCATAAAGTACTTCTGTACAGTATTAGATTCACAATTGCCATATATACTAG  
TTATATTTTCTACTTGTTAAATGGAGGGCATTTTGTATTGTTTTTCATGGTTGTTAACATTGTGTAATATGTCT  
CTATATGAAGGAATAAATACTATTTCACTGA

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**FIGURE 135**

MAALLLGAVLLVAQPQLVPSRPAELGQQELLRKAGTLQDDVRDGVAPNGSAQQLPQTIIIGVRKGGTRALLEMLS  
LHPDVAAAENEVHFFDWEHHYSHGLGWYLSQMPFSWPHQLTVEKTPAYFTSPKVPERVYSMNPSIRLLLILRDPS  
ERVLSDYTQVFYNHMQKHKPYPSIEEFLVRDGRNLVDYKALNRSLYHVHMQNWLRFPLRHHIVDGDRLIRDPF  
PEIQKVERFLKLSPQINASNIFYFNKTKGFYCLRDGRDRCLHESKGRAHPQVDPKLLNKLHEYFHEPNKKFFELV  
GRTFDWH

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**FIGURE 136**

CCGTCCCCGGCGGCJCCATGCCCCGATGCCCCGCGGGGGCCATGGACGAGGGGGCCCGTGGACCTGCGCACCCGGC  
CCAAGGCCGCCGACTCCCGGGCGCCGCGCTGCCGCTCCGCAAGCGCCCGCTGCGCGCGCCCTCCCCGGAGCCCG  
CCGCTCCCCGCGGCGCTGCGGGCCTTGTCGTCCCCCTGGACCCTCTGCGCGGGCGGCTGCGACCTGCCGGCGGTCC  
CCGGGCCCCCCCCACGGCCTGGCCCCGGCCGGAGGCGCTTTACTACCCCGGAGCCTTACTGCCTTTGTACCCCACTC  
GGGCCATGGGCTCCCCGTTTCTCTGGTGAACCTGCCTACACCCCTATACCCCATGATGTGCCCCATGGAACACC  
CCCTTTCTGTGACATCGCCATGGCCACCCGTGCAGATGAGGACGGAGACACGCCTCTCCATATTGCTGTGGTGC  
AGGGTAACCTGCCAGCTGTGCACCGGCTGGTCAACCTCTTCCAGCAGGGGGGGCCGGGAGCTCGACATCTACAACA  
ACCTACGGCAGACACCGCTCCACCTGGCTGTGATCACCACATTACCGTCTGTGGTCCGGCTCCTGGTGACAGCTG  
GTGCCAGCCCCATGGCGCTGGACCGCCATGGCCAGACGGCCGCTCACCTGGCGTGCGAGCACCGCAGCCCGACCT  
GCCTGCGAGCCCTGTGGACAGCGCAGCTCCGGGCACGTTGGACCTGGAGGCCCGCAATTATGACGGGCTCACCG  
CCCTGCACGTGGCAGTGAACACCGAGTGCCAAGAAACCGTGCAGCTCTTGCTAGAGCGCGGTGCCGACATCGACG  
CAGTGGACATTAAGAGCGGGCGCTCCCCGCTCATCCACGCCGTGGAAAAACAACAGCCTTAGCATGGTGCAGCTGC  
TGCTGCAGCACGGCGCCAACGTGAACGCGCAAATGTACTCCGGCAGCTCCGCCCTGCACTCAGCGTCCGGCCGCG  
GGCTCCTCCCGCTGGTGCACGCTGGTCCGCAGCGGCGCTGACAGCAGCCTCAAGAAGTCCACAACGACACGC  
CGCTCATGGTGGCGCGCAGCCGAGGGTCATCGACATCCTGAGGGGGAAGGCCACCCGGCCTGCTTCCACCTCCC  
AGCCAGACCCCTCCCCTGACCGGAGCGCCAACACCTCCCCCGAGAGCAGCAGCCGCTCAGCTCCAATGGTCTTC  
TCTCCGCATCACCATCCTCCTCACCCGCTTCCCTGCCCTTTGCTGGGGTCCCTCCGAGGCCCTGGCCGGCCGG  
ATTTCTTCTTCTTCCCCATCTCCACCCGCTTCCCTGCCCTTTGCTGGGGTCCCTCCGAGGCCCTGGCCGGCCGG  
TGCCCCCCTCCCCAGCTCCAGGAGGCAGCTGAGGGGGATGGGGGGGCAGATCTTGGAATCATGAGGAGGGGGCCC  
CCTGCCCAGAGGGGTCAACCCCTTCTGGAACCTGTGAAGATCTGACTTCGCCCCCCCCCCCCCATCTTCGGGAC  
CAGGATTTGCACAGAAGCACATGCACCTACCCATACACCCCTCTTCTGAGCACAGATGTTCCCCATCTCGCTC  
CCTCCCAGGACTCTGACCCAGCATTCTCAGGCACAGTCCCTGTCCGGAATGCCACCCACATCTTCCATTTCCA  
TGTCCTTCCCAGAGCTGGTGGACCCAGGGAACAGCCACTCCCTCCACTCTCTACCAGATAACTGAGGAGGGGA  
GAGGTGGGCCGTAAACGGGCACGGATCACGATGTAAATTATTAAGCATTTTGGTTGGATTTCTTTTGTAAATAAAT  
ATTTTTGTACCAT



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**FIGURE 137**

MDEGPVDLRTRPKAAGLPGAALPLRKRPLRAPSPPEPAAPRGAAGLVVPLDPLRGGCDLPAVPGPPHGLARPEALY  
YFGALLPLYPTRAMGSPFPLVNLPTPLYPM MCPMEHPLSADIAMATRADEDGDTPLHIAVVQGNLPAVHRLVNLF  
QQGGRELDIYNNLRQTPLHLAVITTLPSVVRLLVTAGASPMALDRHGQTAAHLACEHRSPTCLRALLDSAAPGTL  
DLEARNYDGLTALHVAVNTECQETVQLLLERGADIDAVDIKSGRSPLIHAVENNSLSMVQLLLQHGANVNAQMYS  
GSSALHSASGRGLLPVRTLVRSGADSSLKNCHNDTPLMVARSRVIDILRGKATRPASTSQPDPSPD RSANTSP  
ESSSRLSSNGLLSASPSSSPSQSPPRDPPGFPMAPPNFFLPSPSPPAFLPFAGVLRGPRPVPPSPAPGGS

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**FIGURE 138**

CGGGCGCCAGAGGGCAAATGAGGGGCGGCGGGGTGGCGGGTCGGGGGAGACGCGGAATTTCCAGCGCGGGG  
CTCTGGCTTACCCTGCAACCGGGCAGTCTCTTTCTGTTTACGGAGAGAAAGGGGAAATGGAAAAGTCGGGGAGGC  
GGTGGCTGGCGTCCGCTGCGCCGCCCTGGGCAGGCTCAGACGCCGTGAGTCAGGGGCAGAGCAGGGCGGTCTGA  
GCGTGCGGGCGACGCGGGTCTCACTCGTCCGCTCCGCTCTGGACTGCGCGCCACGCTCTGGGGTCCGGCGCCCTG  
GTTCTGCTTCTGCCGCTGCCGCCGCCGATCCCAGTGGCCCCGGCGTGCTCGGCTCCACAGGCCTGCAGCCAGC  
ATCGCACCGAACCTTCGGGGGGCGCGGCTGGAGCGCTCGGCCGGCGTGGGAGCGCCAAGGCCGCAGATGCAATC  
TTCTTACCGCGAAGAAGCCAGGGGAATAGGTAGCCACATCTTGTTTGCAGATAAGAAAGGAAGCTAACGCAGTAT  
CTGCAAAGCCAGGAGTCTGACTCAGTACTTTTCTCACTCATGCATACAAAGCAGCTAAAAATGACACAGCTTATT  
TACCATGCCCCTGACACTGCACTGAGCACTTTATGAGCTTGAACCTCTGTTAATCCTCACGACCACCTCATGAGAC  
TCTCCAGAAAGAGCAACAGTAATGGAGTACATGAGCACTGGAAGTGACAATAAAGAAGAGATTGATTTATTAATT  
AAACATTTAAATGTGTCTGATGTAATAGACATTATGAAAATCTTTATGCAAGTGAAGAGCCAGCAGTTTATGAA  
CCCAGTCTAATGACCATGTGTCAAGACAGTAATCAAACGATGAGCGTTCTAAGTCTCTGCTGCTTAGTGGCCAA  
GAGGTACCATGGTTGTCTCAGTCAGATATGGAACGTGTGGAGGATTTGCTTGCTTTTGCAAACCATATATCCAAC  
ACTGCAAAGCATTTTTATGGACAACGACCACAGGAATCTGGAATTTTATTAAACATGGTCATCACTCCCCAAAAT  
GGACGTTACCAAATAGATTCCGATGTTCTCCTGATCCCCTGGAAGCTGACTTACAGGAATATTGGTTCTGATTTT  
ATTCTCGGGGCGCCTTTGGAAAGGTATACTTGGCACAAGATATAAAGACGAAGAAAAGAATGGCGTGTAAGCTG  
ATCCCAGTAGATCAATTTAAGCCATCTGATGTGGAATCCAGGCTTGCTTCCGGCACGAGAACATCGCAGAGCTG  
TATGGCGCAGTCTGTGGGGTGAAACTGTCCATCTCTTTATGGAAGCAGGCGAGGGAGGGTCTGTTCTGGAGAAA  
CTGGAGAGCTGTGGACCAATGAGAGAATTTGAAATATTTTGGGTGACAAAGCATGTTCTCAAGGGACTTGATTTT  
CTACACTCAAAGAAAGTGATCCATCATGATATTAAACCTAGCAACATTGTTTTTCATGTCCACAAAGCTGTTTTG  
GTGGATTTTGGCCTAAGTGTTCAAATGACCGAAGATGTCTATTTTCTAAGGACCTCCGAGGAACAGAGATTTAC  
ATGAGCCCAGAGGTCTATCCTGTGCAGGGGCCATTCAACCAAAGCAGACATCTACAGCCTGGGGGCCACGCTCATC  
CACATGCAGACGGGCACCCACCCCTGGGTGAAGCGCTACCCTCGCTCAGCCTATCCCTCCTACCTGTACATAATC  
CACAAGCAAGCACCTCCACTGGAAGACATTGCAGATGACTGCAGTCCAGGGATGAGAGAGCTGATAGAAGCTTCC  
CTGGAGAGAAACCCCAATCACCGCCCAAGAGCCGCAGACCTACTAAAACATGAGGCCCTGAACCCGCCAGAGAG  
GATCAGCCACGCTGTCTGAGTCTGGACTCTGCCCTCTTGGAGCGCAAGAGGCTGCTGAGTAGGAAGGAGCTGGAA  
CTTCTGAGAACATTGCTGATTCTTCTGTGCACAGGAAGCACCGAGGAATCTGAGATGCTCAAGAGGCAACGCTCT  
CTCTACATCGACCTCGGCGCTCTGGCTGGCTACTTCAATCTTGTTTCGGGGACCACCAACGCTTGAATATGGCTGA

AGGATGCCATGTTTGCTCTAAATTAAGACAGCATTGATCTCCTGGAGGCTGGTTCTGCTGCCTCTACACAGGGGC  
CCTGTACAGTGAATGGTGCCATTTTCGAAGGAGCAGTGTGACCTCCTGTGACCCATGAATGTGCCTCCAAGCGGC  
CCTGTGTGTTTGACATGTGAAGCTATTTGATATGCACCAGGTCTCAAGGTTCTCATTCTCAGGTGACGTGATTC  
TAAGGCAGGAATTTGAGAGTTCACAGAAGGATCGTGTCTGCTGACTGTTTCATTCACTGTGCACTTTGCTCAAAA  
TTTTAAAAATACCAATCACAAGGATAATAGAGTAGCCTAAAATTACTATTCTTGGTTCTTATTTAAGTATGGAAT  
ATTCATTTTACTCAGAATAGCTGTTTTGTGTATATTGGTGTATATTATATAACTCTTTGAGCCTTTATTGGTAAA  
TTCTGGTATACATTGAATTCATTATAATTTGGGTGACTAGAACAACTTGAAGATTGTAGCAATAAGCTGGACTAG  
TGTCCTAAAAATGGCTAACTGATGAATTAGAAGCCATCTGACAGCAGGCCACTAGTGACAGTTTCTTTTGTGTTT  
CTATGGAAACATTTTATACTGTACATGCTATGCTGAAGACATTCAAACCGTGATGTTTTGAATGTGGATAAACT  
GTGTAAACCACATAATTTTTGTACATCCCAAAGGATGAGAATGTGACCTTTAAGAAAAATGAAAACTTTTGTAAA  
TTATTGATGATTTTGTAAATCTTATGACTAAATTTCTTTTAAAGCATTTGTATATTAAATAGCATACTGTGTAT  
GTTTTATATCAAATGCCCTTCATGAATCTTTCATACATATATATTTTGTAAACATTGTAAAGTATGTGAGTAGTCT  
TATGTAAAGTATGTTTTTACATTATGCAAATAAAACCAATACTTTTGTCCAATGTGGTTGGTCAAATCAACTGA  
ATAAATTCAGTATTTTGCCTT

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**FIGURE 139**

MEYMSTGSDNKEEIDLLIKHLNVSDVIDIMENLYASEEPAVYEPSLMTMCQDSNQNDERSKSLLLSGQEV PWLSS  
VRYGTVEDLLAFANHISNTAKHFGQRPQESGILLNMVITPQNGRYQIDSDVLLIPWKLT YRNIGSDFIPRGAFG  
KVYLAQDIKTKKRMACKLIPVDQFKPSDVEIQACFRHENIAELYGAVLWGETVH LFM EAGEGGSVLEKLESCGPM  
REFEIIWVTKHVLKGLDFLHSSKKVIHHDIKPSNIVFMSTKAVLVDFGLSVQMTEDVYFPKDLRGTEIYMSPEVIL  
CRGHSTKADIYSLGATLIHMQTGTPPWVKRYPRSA YPSYLYIIHKQAPPLIEDIADDCSPGMRELIEASLERNPNH  
RPRAADLLKHEALNPPREDQPRCTSLDSALLERKRLLSRKELELPENIADSSCTGSTEESEMLKRQ RSLYIDLGA  
LAGYFNLVRGPPTLEYG

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**FIGURE 140**

GCTGCTGCGACAGTCCACTACCTTTTTTCGAGAGTGACTCCCGTTGTCCCAAGGCTTCCCAGAGCGAACCTGTGCG  
GCTGCAGGCACCGGCGCGTCGAGTTTTCCGGCGTCCGGAAGGACCGAGCTCTTCTCGCGGATCCAGTGTTCCGTTT  
CCAGCCCCCAATCTCAGAGCCGAGCCGACAGAGAGCAGGGAACCGGCATCGCCAAAGCCGCGGCGATCGGCATCG  
ACCTGGGCACCACCTACTCCTGCGTGCGGGGTGTTCCAACACGGCAAGGTGGAGATCATCGCCAACGACCAGGGCA  
ACCGCACCACCCCCAGCTACGTGGCCTTCACGGACACCGAGCGGCTCATCGGGGATGCGGCCAAGAACCAGGTGG  
CGCTGAACCCGCGAGAACACCGTGTTTGACGCGAAGCGGCTGATCGGCCGCAAGTTCGGCGACCCGGTGGTGCACT  
CGGACATGAAGCACTGGCCTTTCCAGGTGATCAACGACGGAGACAAGCCCAAGGTGCAGGTGAGCTACAAGGGGG  
ACACCAAGGCATTCTACCCCGAGGAGATCTCGTCCATGGTGCTGACCAAGATGAAGGAGATCGCCGAGGCGTACC  
TGGGCTACCCGGTGACCAACGCGGTGATCACCGTGCCGGCCTACTTCAACGACTCGCAGCGCCAGGCCACCAAGG  
ATGCGGGTGTGATCGCGGGGGCTCAACGTGCTGCGGATCATCAACGAGCCACGCGCGCCGCATCGCCTACGGCC  
TGGACAGAACGGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACCTGGGCGGGGGCACCTTCGACGTGTCCATCC  
TGACGATCGACGACGGCATCTTCGAGGTGAAGGCCACGCGCGGGGACACCCACCTGGGTGGGGAGGACTTTGACA  
ACAGGCTGGTGAACCACTTTCGTGGAGGAGTTCAAGAGAAAACACAAGAAGGACATCAGCCAGAACAAGCGAGCCG  
TGAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGTCTCCAGCACCCAGGCCAGCCTGGAGATCG  
ACTCCCTGTTTGAGGGCATCGACTTCTACACGTCCATCACCAGGGCGAGGTTTCGAGGAGCTGTGCTCCGACCTGT  
TCCGAAGCACCTTGAGCCCGTGGAGAAGGCTCTGCGCGACGCCAAGCTGGACAAGGCCAGATTACGACCTGG  
TCCTGGTCGGGGGCTCCACCCGCATCCCCAAGGTGCAGAAGCTGCTGCAGGACTTCTTCAACGGGCGCGACCTGA  
ACAAGAGCATCAACCCCGACGAGGCTGTGGCCTACGGGGCGGCGGTGCAGGCGGCCATCCTGATGGGGGACAAGT  
CCGAGAACGTGCAGGACCTGCTGCTGCTGGACGTGGCTCCCTGTCTGCTGGGGCTGGAGACGGCCGGAGGCGTGA  
TGACTGCCCTGATCAAGCGCAACTCCACCATCCCCACCAAGCAGACGCAGATCTTACCACCTACTCCGACAACC  
AACCCGGGGTGTGATCCAGGTGTACGAGGGCGAGAGGGCCATGACGAAAGACAACAATCTGTTGGGGCGCTTCG  
AGCTGAGCGGCATCCCTCCGGCCCCCAGGGGCGTGCCCCAGATCGAGGTGACCTTCGACATCGATGCCAACGGCA  
TCCTGAACGTACGGCCACGGACAAGAGCACCGGCAAGGCCAACAAGATCACCATCACCACGACAAGGGCCGCC  
TGAGCAAGGAGGAGATCGAGCGCATGGTGCAGGAGGCGGAGAAGTACAAAGCGGAGGACGAGGTGCAGCGCGAGA  
GGGTGTACGCCAAGAACGCCCTGGAGTCCTACGCC TTCAACATGAAGAGCGCCGTGGAGGATGAGGGGCTCAAGG  
GCAAGATCAGCGAGGCCGACAAGAAGAAGGTGCTGGACAAGTGTCAAGAGGTGATCTCGTGGCTGGACGCCAACA  
CCTTGGCCGAGAAGGACGAGTTTGAGCACAAGAGGAAGGAGCTGGAGCAGGTGTGTAACCCCATCATCAGCGGAC  
TGTACCAGGGTGCCGGTGGTCCCGGGCCTGGGGGCTTCGGGGCTCAGGGTCCCAAGGGAGGGTCTGGGTGAGGCC  
CCACCATTGAGGAGGTAGATTAGGGGCTTTTCCAAGATTGCTGTTTTTTGTTTTGGAGCTTCAAGACTTTGCATTT  
CCTAGTATTTCTGTTTGTGAGTTCTCAATTTCTGTGTTTGCAATGTTGAAATTTTTTGGTGAAGTACTGAACCTT  
GCTTTTTTTTCCGGTTTCTACATGCAGAGATGAATTTATACTGCCATCTTACGACTATTTCTTCTTTTAAATACAC  
TTAACTCAGGCCATTTTTTAAAGTTGGTTACTTCAAAGTAAATAAACTTTAAAATTCAAGTGA

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**FIGURE 141**

MAKAAAIGIDLGTTSYSCVGVFQHGKVEIIANDQGNRTTPSYVAFTDTERLIGDAAKNQVALNPQNTVFDKRLIG  
RKFGDPVVQSDMKHWPQVINDGDKPKVQVSYKGD TKAFYPEEISSMVLTKMKEIAEAYLGYPVTNAVITVPAYF  
NDSQRQATKDAGVIAGLNLVRIINEPTAAAIAYGLDRTGKGERNVLIFDLGGGTFDVSILTIDDGIFEVKATAGD  
THLGGEDFDNRLVNHFVEEFKRKHKKDISQNKRAVRLRTACERAKRTLSSSTQASLEIDSLFEGIDFYTSITRA  
RFEELCSDLFRSTLEPVEKALRDAKLDKAQIHDLVLVGGSTRIPKVQKLLQDFFNGRDLNKSINPDEAVAYGA AV  
QAAILMGDKSENVQDLLLLDVAPLSLGLETAGGVMTALIKRNSTIPTKQTQIFTTYS DNQPGVLIQVYEGERAMT  
KDNLLGRFELSGIPPAPRGVPQIEVTFDIDANGILNVTATDKSTGKANKITITNDKGRLSKEEIERMVQEA EKY  
KAEDVQRRERSAKNALESYAFNMKSAVEDEGLKGKISEADKKKVLDKCQEVISWLDANTLA EKDEFEHKRKELE  
QVCNPIISGLYQGAGGPGPGGFGAQGPKGGSGSGPTIEVD

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**FIGURE 142**

AGCTGTCCCGGTGCCGCCACCGGGGCGCTGCCGTGTGCCCGTGGCTCCAGCCGCTGCCCGCTCGATCTCCTC  
 GTCTCCCGCTCCGCCCTCCCTTTTCCCTGGATGAACTTGCCTCTTTCTCTTCTCCGCCATGGAATTCTGCTCCG  
 TGCTTTTAGCCCTCCTGAGCCAAAGAAACCCAGACAACAGATGCCCATACGCAGCGTATAGCAGTAACTCCCCA  
 GCTCGGTTTTCTGTGCCGTAGTTTACAGTATTTAATTTTATATAATATATATTATTTATTATAGCATTTTTTGATAC  
 CTCATATTCTGTTTACACATCTTGAAAGGCGCTCAGTAGTTCTCTTACTAAACAACCACTACTCCAGAGAATGCGC  
 AACGCTGATTACCAGTACTACAGCTGCTACCGCCGCTTCTGGTCCTTTGGTGGACTACCTATGGATGCTCATCTCT  
 GGGCTTCATTATTGCATTTGTCTTGGCATTCTCCGTGGGAGCCAAATGATGTAGCAAATTTCTTTTGGTACAGCTGT  
 GGGCTCAGGTGTAGTGACCTTGAAGCAAGCCTGCATCCTAGCTAGCATCTTTGAAACAGTGGGCTCTGTCTTACT  
 GGGGGCCAAAGTGAGCGAAACCATCCGGAAGGGCTTGATTGACGTGGAGATGTACAACTCGACTCAAGGGCTACT  
 GATGGCCGGCTCAGTCAGTGCTATGTTTGGTTCGTCTGTGTGGCAACTCGTGGCTTCGTTTTTGAAGCTCCCTAT  
 TTCTGGAACCCATTGTATTGTTGGTGCAACTATTGGTTTTCTCCCTCGTGGCAAAGGGGCAGGAGGGTGTCAAGTG  
 GTCTGAACTGATAAAAAATTGTGATGTCTTGGTTCGTGTCCCCACTGCTTTCTGGAATTATGTCTGGAATTTTATT  
 CTTCTGGTTCGTGCATTTCCTCCATAAGGCAGATCCAGTTCCCTAATGGTTTTCGAGCTTTGCCAGTTTTCTA  
 TGCTGCACAGTTGGAATAAACCTCTTTCCATCATGTATACTGGAGCACCCTGTCTGGGCTTTGACAAACTTCC  
 TCTGTGGGGTACCATCCTCATCTCGGTGGGATGTGCAGTTTTCTGTGCCCTTATCGTCTGGTTCCTTTGTATGTCC  
 CAGGATGAAGAGAAAAATTGAACGAGAAATAAAGTGTAGTCCCTTCTGAAAGCCCCCTAATGGAAAAAAGAATAG  
 CTTGAAAGAAGACCATGAAGAAACAAAGTTGTCTGTGGTGATATTGAAACAAGCATCCTGTTTCTGAGGTAGG  
 GCCTGCCACTGTGCCCCCTCCAGGCTGTGGTGGAGGAGAGAACAGTCTCATTCAAACCTTGAGATTGGAGGAAGC  
 TCCAGAGAGAGAGAGGCTTCCCAGCGTGGACTTGAAAGAGGAAACCAGCATAGATAGCACCCTGAATGGTGCAGT  
 GCAGTTGCCCTAATGGGAACCTTGTCAGTTTCAGTCAAGCCGTCAGCAACCAAATAAACTCCAGTGGCCACTCCCCA  
 GTATCACACCGTGCATAAGGATTCGGCCTGTACAAAGAGCTACTCCATAAATTACATCTTGCCAAGGTGGGAGA  
 TTGCATGGGAGACTCCGGTGACAAACCCCTTAAGGCGCAATAAATAGCTATACTTCCTATACCATGGCAATATGTGG  
 CATGCCCTCTGGATTCAATCCGTGCCAAAAGAAGGTGAACAGAAGGGCGAAGAAATGGAGAAAGCTGACATGGCCTAA  
 TGCAGACTCCAAGAAGCGAATTGGAATGGACAGTTACACCAGTTACTGCAATGCTGTGCTGACCTTCACCTCAGC  
 ATCTGAGATAGACATGAGTGTCAAGGCAGCGATGGGTCTAGGTGACAGAAAAGGAAGTAATGGCTCTCTAGAAGA  
 ATGGTATGACCAGGATAAGCCTGAAGTCTCTCTCCCTCTTCCAGTTCCCTGCAGATCCTTACAGCCTGCTTTGGGTC  
 ATTCGCCCATGGTGGCAATGACGTAAGCAATGCCATTGGGGCCTCTGGTTGCTTTATATTTGGTTTATGACACAG  
 AGATGTTTCTTCAAAGTGGCAACACCAATATGGCTTCTACTCTATGGTGGTGTGGTATCTGTGTGGTCTGTG  
 GGTTTGGGGAAGAAGAGTTATCCAGACCATGGGGAAGGATCTGACACCGATCACACCTCTAGTGGCTTCAGTAT  
 TGAACCTGGCATCTGCCCTCACTGTGGTGATTGCATCAAATATTGGCCTTCCCATCAGTACAACACATTGTAAAGT  
 GGGCTCTGTTGTGTCTGTTGGCTGGCTCCGGTCCAAGAAGGCTGTTGACTGGCGTCTCTTTCGTAACATTTTTAT  
 GGCTGGTTTGTACAGTCCCCATTCTGGAGTTATCAGTGTCTGCCATCATGGCAATCTTCAGATATGTCATCCT  
 CAGAATGTGAAGCTGTTTGAGATTAATAATTGTGTCAATGTTTGGGACCATCTAGGTATTCTGTCTCCCTGAA  
 GAATGATTACAGTGTTAACAGAAGACTGACAAGAGTCTTTTTATTGAGGAGCAGAGGAGGGAAGTGTACTTGTG  
 CTATAACTGCTTTTGTGTAAATATGAATTGTCTCAAAATTAGCTGTGTAAAATAGCCCGGGTCCACTGGCTCC  
 TGCTGAGGTCCCCTTTCTTCTGGGCTGTGAATTCCTGTACATATTTCTCTACTTTTTGTATCAGGCTTCAATTC  
 CATTATGTTTTAATGTTGTCTCTGAAGATGACTTGTGATTTTTTTTTCTTTTTTTTAAACCATGAAGAGCCGTTT  
 GACAGAGCATGCTCTGCGTTGTGGTTTACCAGCTTCTGCCCTCACATGCACAGGGATTAAACAACAAAAATAT  
 AACTACAACCTTCCCTTGATGCTCTTATATAAGTAGAGTCTTGGTACTCTGCCCTCCTGTCTAGTAGTGGCAGGA  
 TCTATTGGCATATTCCGGAGCTTCTTAGAGGGATGAGGTTCTTTGAACACAGTGAAAAATTTAAATTAGTAACTTT  
 TTTGCAAGCAGTTTATTGACTGTTATTGCTAAGAAAGAGTAAGAAAAGAAAAAGCCTGTTGGCAATCTTGGTTATT  
 TCTTTAAGATTTCTGGCAGTGTGGGATGGATGAATGAAGTGGAATGTGAACTTTGGGCAAGTTAAATGGGACAGC  
 CTTCCATGTTCAATTGTCTACCTCTTAACTGAATAAAAAAGCCTACAGTTTTTGAAAAAAACCCGAATTC

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**FIGURE 143**

MATLITSTTAATAASGPLVDYLWMLILGFIIAFVLAFSVGANDVANSFGTAVGSGVVTLKQACILASIFETVGSV  
LLGAKVSETIRKGLIDVEMYNSTQGLLMAGSVSAMFGSAVWQLVASFLKLPISGTHCIVGATIGFSLVAKGQEGV  
KWSELIKIVMSWFVSPLLSGIMSGILFFLVRAFILHKADVPVNGLRALPVFYACTVGINLFSIMYTGAPLLGFDK  
LPLWGTILISVGCASFVFCALIVWFFVCPRMKRKIEREIKCSPSESPLEKKNSLKEDHEETKLSVGDIENKHPVSE  
VGPA TVPLQAVVEERTVSFKLGDLEEAPERERLPSVDLKEETSIDSTVNGAVQLPNGNLVQFSQAVSNQINSSGH  
SQYHTVHKDSGLYKELLHKLHLAKVGDCMGDSGDKPLRRNNSYTSYMAICGMPLDSFRAKEGEQKGEEMEKLTW  
PNADSKKRIRMDSYTSYCNVSDLHSASEIDMSVKAAMGLGDRKGSNGSLEEWYDQDKPEVSLLFQFLQILTACF  
GSFAHGGNDVSNAGPLVALYLVYDTGDVSSKVATPIWLLLYGGVGICVGLWVWGRRVIQTMGKDLTPITPSSGF  
SIELASALTVVIASNIGLPISTTHCKVGSVSVSGWLRSKKAVDWRLFRNIFMAWFVTVPISGVISAAIMAFRYV  
ILRM

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**FIGURE 144A**

TTGATTTGGTATAGTGGGAACATTGCTTTGGAGACAGATGAACTGGATTCTGATCGTGACCCTGCTATTTTCTC  
CTTGTTGACTTTGGAGCCATGAGACCCAGATCCTGCTGCTCCTGGCCCTGCTGACCCTAGGCCTGGCTGCACA  
ACACCAAGACAAAGTGCCCTGTAAGATGGTGGACAAGAAGGTCTCGTGCCAGGTTCTGGGCCTGCTCCAGGTCCC  
CTCGGTGCTCCCGCCAGACACTGAGACCCTTGATCTATCTGGGAACCAGCTGCGGAGTATCCTGGCCTACCCCT  
GGGCTTCTACACGGCACTTCGTCACTGGACCTGAGCACCAATGAGATCAGCTTCCTCCAGCCAGGAGCCTTCCA  
GGCCCTGACCCACCTGGAGCACCTCAGCCTGGCTCACAACCGCTGGCGATGGCCACTGCGCTGAGTGCTGGTGG  
CCTGGGCCCCCTGCCACGCTGACCTCCCTGGACCTGTCTGGGAACAGCCTGTACAGCGGCCTGCTGGAGCGGCT  
GCTGGGGGAGGCACCCAGCCTGCATACCCTCTCACTGGCGGAGAACAGTCTGACTGCGCTACCCGCCACACCTT  
CCGGGACATGCCTGCGCTGGAGCAGCTTGACCTGCATAGCAACGTGCTGATGGACATCGAGGATGGCGCCTTCCA  
GGGCTGCCCGCCTGACCCATCTCAACCTCTCCAGGAATTCCCTCACCTGCATCTCCGACTTCAGCCTCCAGCA  
GCTGCGGGTGCTAGACCTGAGCTGCAACAGCATCGAGGCCTTTCAGACGGCCTCCAGCCCCAGGCTGAGTTCCA  
GCTCACTGGCTTGACCTGCGGGGAGAACAACTGCTCCATTTCCCCGACCTGGCCGCGCTCCCGAGACTCATCTA  
CCTGAACTTGTTCAACAACCTCATCCGGCTCCCCACAGGGCCACCCAGGACAGCAAGGGCATCCACGCACCTTC  
CGAGGGCTGGTCAAGCCTGCCCTCTCAGCCCCCAGCGGGAATGCCAGCGGCCGCCCTTTCCAGCTCTTGAA  
TCTGGATTTGAGCTACAATGAGATTGAGCTCATCCCCGACAGCTTTCTTGAGCACCTGACCTCCCTGTGCTTCCT  
GAACCTCAGCAGAACTGCTTGCGGACCTTTGAGGCCCGCGCTTAGGCTCCCTGCCCTGCCTGATGCTCCTTGA  
CTTAAGCCACAATGCCCTGGAGACACTGGAAGTGGGCGCCAGAGCCCTGGGGTCTCTGCGGACGCTGCTCCTACA  
GGGCAATGCCCTGCGGGACCTGCCCCATACACCTTTGCCAATCTGGCCAGCCTGCAGCGGCTCAACCTGCAGGG  
GAACCGAGTCAGCCCTGTGGGGGGCCAGATGAGCTGGCCCTCCGGCTGTGTGGCCTTCTCCGGCATCACCTC  
CCTCCGCAGCCTGAGCCTGGTGGATAATGAGATAGAGCTGCTCAGGGCAGGGGCCTTCTCCACACCCCACTGAC  
TGAGCTGGACCTTTCTTCCAATCCTGGGCTGGAGGTGGCCACGGGGCCTTGGGAGGCCTGGAGGCCTCCTTGA  
GGTCTTGGCACTGCAGGGCAACGGGCTGATGGTCTGTCAGGTGGACCTGCCCTGCTTCATCTGCCTCAAGCGGCT  
CAATCTTGCCGAGAACCCTGAGCCACCTTCCCGCTGGACACAGGCTGTGTCACTGGAGGTGCTGGACCTGCG  
AAACAACAGCTTCAGCCTCCTGCCAGGCAGTGCCATGGGTGGCCTGGAGACCAGCCTCCGGCGCCTCTACCTGCA  
GGGGAATCCACTCAGCTGCTGCGGCAATGGCTGGCTGGCAGCCAGCTGCACCAGGGCCGTGTGGACGTGGACGC  
CACCCAGGACCTGATCTGCCGCTTCAGCTCCCAGGAGGAGGTGTCCCTGAGCCACGTGCGTCCCGAGGACTGTGA  
GAAGGGGGGACTGAAGAATCAACCTCATCATCATCTCACCTTCATACTGGTCTCTGCCATCTCTCTCACCAC  
GCTGGCCGCTGCTGCTGCGTCCGCGGCAGAAAGTTAAACCAACAGTATAAAGCCTAAAGAAGCCGGGAGACACT  
CTAGGTCACTGGGGGAGCCTGAGGTACAGAGAAGAGTGAGGACTGACTCAAGGTACACAGTGATCCGGATCCCA  
GAACTCTGGTCTCCAAATTACAGCCCAGGACACCTTTCTCTGCCGCTGCTGCATCAGTGGGTGACCCCTTCCC  
GGGCTGCACTTTGGGTCCAGCTGTGGAAGCCAGAAGTTGGGCGGTTTCAGGGACAGCCGAGAATAATGTTGACCT  
GTCAGATCAACAAATCTTCACTGAGCATGTATTTTGTGCCACACCCTGCTCTGGGCACTGGGAATGCTGGGAAAT  
GAGATACATTCCCGCCCTCAAGAATCTCCCAGTCTGGTAGGAGAGAGTGCTGCAGAGCCACGTGGCCGCCACGCA  
GTGTGCTTAGGGCCTGAGGTGTGAAAGCCAGGGCTCCAGAGCTCGGCAGGCCCGCTGGTTTGGTGGCGGTGAGT  
CCTGCCCCGGCTGTGCAGGTGAGGGAGGGCCAAGCCAGGAGGATTTGTCTGAGACATTTCCAAGCAGACTGTTT  
GTCACGTCTTCTGAGAATGACTTTCAGTCTCTCTGAAAATGAAAAGCTTAGGACCGGAAGAGAGAATTGGAGCTG  
TACGAGTGTGTCTCGGATCTGGTATTGTTAGGTGGGCCACGGCGGCTCCAGCAGGGTCTGGTTAAGGGGTCCAGC  
CCAGCACTGGACCATTCGCTCTCTGCTCTGGAATTTGCCCTCTCCCTTCTGGCACTCTCATGTTGCATACCCTG  
ACCCAGTGCTGCTCTAAGCACCGTCCCTGCCAGCCCCACTTCTCCATCGCAGCCCCACCTTGGCTGCTGAGCC  
AGGAGCTAAACCTTAGATATCTGGTTCTGTTTGCACCCAGCTTGGCAGATGTGGATTTGAATCCAAGCCTTGT  
GTCTGCCCCATATGTGACAGCTCTATATTTTATCCCGTTTTATAAAGAGGAAACTGAAGTTCTGAAAATCTCCT  
TCCAGGGCCCCAGCTAATAATGCCATAGGTGAGATTCAAACCTTCATCCTTCTGTCTCCAGGGCCTGATCTTTA  
CCACTGCAGGGGCTGCAGGCCGTTAAGTGGACAGGAAGTGGCCCCACATAGCCCGAGCAGGGTCTGGAAGCATCC  
TGTGCTGTGCACACCTGCTCTCTCCTCTCTCCAGGCAGGCAGCTGCAGGCGCTCTCCTCCTTCTCTGCCTGTTT  
CCCTCCTCCCTTCCCTTCCACCCTGGTGTGGGTTCTCCTGTTCTCTCTGTGCTCTTGCACTTCTCTCATTCCCTTT  
TCCTCTATGGAGCAGAGCCTGGAGTTTGGAGCTATGGAATCCAACCTCCCCATTGCACAGATGGGGAACTGAGG  
CTTAGGAAGAGAATGAACTTGTGGAGAGCTTATACAGAACCTCTGGGGGAAAAAAGAGCCCTTATTTGTGGGGT  
GAGATTGGGGGTGGACCAGAGTGATGTCCTCTCTCAGCTATCACATCACAAGATAATGCTGGCTCCAACTTCC



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**FIGURE 144B**

TTTCTGTGCCTCATCATGCAAGGATCTTTTTTCCCTCTTACAAAAACAGGTAAAAAGCCTCACCCAGATGACCCC  
CATCCCTCATACCATGGAGTCATGAGCTGTCTGGGAAGAATGGACGTGCTGGGACCAACTCAAGACCTTGTTTTG  
CTGTCTTCATCATCTTACCTGTGCTTGGCCACAGTCTGGCTCATGATGTGGGCTCAGTAATGTGCGAGAAAGTG  
AAAATGCCACTCTCTCCACCCCATTTTACAGAGGAGAACACCAAGGCCCAGAGGAAGTTAAGGGAGAGTCAATGG  
GCAGAGCCAGGGCTAGGCCCTGGTGGTGTGTGGAGCACCCAGGCAGACCCAGTCCTGGTTGGGATCACACCCACG  
GGTGCTACTGCACGTAACACTCCTCCTTAGGCCTGGAGGCCAAGGTGTGGGTCCCCACGCCTGATCTTTGAAAAC  
ACTACACAGGGCTGCTGTCACTTCCCAGGGCCCAGGCCTCAGCCCAGGCCTCGGGACCAACTCTTTGTATAACCT  
ACCTGAATGTATTAAAACTAATTTTGAAAAAAAAA

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**FIGURE 145**

MRPQIILLLLALLTLGLAAQHODKVPCKMVDKKVSCQVLGLLQVPSVLPPDTETLDLSGNQLRSILASPLGFYTAL  
RHLDLSTNEISFLQPGAFAQALHLEHLSLAHNRLAMATALSAGGLGPLPRVTSLDLSGNSLYSGLLERLLGEAPS  
LHTLSLAENSLTRLTRHTFRDMPALEQLDLHSNVLMIEDGAFEGLPRLTHLNLSRNSLTCISDFSQQLRVLDL  
SCNSIEAFQTASQPQAEFQLTWDLRENKLLHFPDLAALPRLIYLNLSNNLIRLPTGPPQDSKGIHAPSEGWSAL  
PLSAPSGNASGRPLSQLLNLDLSYNEIELIPDSFLEHLTSLCFLNLSRNCLRTFEARRLGSLPCLMLLDLSHNAL  
ETLELGARALGSLRTLTLQGNALRDLPPYTFANLASLQRLNLQGNRVSPCGGPDEPGPSGCVAFSGITSLRSLSL  
VDNEIELLRAGAF LHPTLTELDSLSSNPGLEVATGALGGLEASLEVLALQGNGLMVLQVDLPFCFICLKRLNLAENR  
LSHLPAWTQAVSLEVLDLRNNSFSLPGSAMGGLETSLRRLYLQGNPLSCCGNGWLAAQLHQGRVDVDATQDLIC  
RFSSQEEVSLSHVRPEDCEKGGLKNINLI IILTFILVSAILLTTLAACCCVRRQKFNQQYKA

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**FIGURE 146**

GAATTTTCTGCAAGGATCATATCTAAGTGCACCTTTTGGTGTGATCTTCACTTCTAGACATTGAGTCTACCTACCTAC  
CCCCAGGCTGAAGTGCAGTGGTGTGATCTCGGTTCACTGCAACCTCCGCCCTCAGGTTCAAGTGATTCTCGTAC  
CTCAGCCTCCCAGTAGCTGGGATTACAGGCGCCTGCCACCATGCCTGGCTGATATTTATATTTTTAGTAGAGAT  
GGAGTTTCACCATGTTGGCCAGGCTGGTCTCGAACCTTGACCTCAGATCTTGTAAGAAAATTTAGCTGTAGCCC  
TTGGACTAGAAGCTGAAATAACAGAAGCTGTGTACGATGCATTAGGGTATTGAAGAAAATTAACTTTTGAATTAA  
ATATTTGGAATATAAGGAAATAAGGAAAGTTGACTGAAAATGGGGCGGAAGAAAATACAAATCACACGCATAATG  
GATGAAAGGAACCGACAGGTCACTTTTACAAAGAGAAAAGTTTGATTAAATGAAGAAAGCCTATGAACCTTAGTGTG  
CTCTGTGACTGTGAAATAGCACTCATCATTTTTCAACAGCTCTAACAAACTGTTTCAATATGCTAGCACTGATATG  
GACAAAGTTCTTCTCAAGTATACAGAATATAATGAACCTCATGAAAGCAGAACCAACTCGGATATTGTTGAGGCT  
CTGAACAAGAAGGAACACAGAGGGTGCGACAGCCCAGACCCTGATACTTCATATGTGCTAACTCCACATACAGAA  
GAAAAATATAAAAAAATTAATGAGGAATTTGATAATATGATGCGGAATCATAAAATCGCACCTGGTCTGCCACCT  
CAGAACTTTTCAATGTCTGTACAGTTCCAGTGACCAGCCCCAATGCTTTGTCTTACACTAACCAGGGAGTTCA  
CTGGTGTCCCCATCTTTGGCAGCCAGCTCAACGTTAACAGATTCAAGCATGCTCTCTCCACCTCAAACCACATTA  
CATAGAAATGTGTCTCCTGGAGCTCCTCAGAGACCACCAAGTACTGGCAATGCAGGTGGGATGTTGAGCACTACA  
GACCTCACAGTGCCAAATGGAGCTGGAAGCAGTCCAGTGGGGAATGGATTGTAAACTCAAGAGCTTCTCCAAAT  
TTGATTGGAGCTACTGGTGCAAATAGCTTAGGCCAAAGTCATGCCTACAAAGTCTCCCCCTCCACCAGGTGGTGGT  
AATCTTGGAATGAACAGTAGGAAACCAGATCTTCGAGTTGTCATCCCCCTTCAAGCAAGGGCATGATGCCTCCA  
CTATCGGAGGAAGAGGAATTGGAGTTGAACACCCAAAGGATCAGTAGTTCTCAAGCCACTCAACCTCTTGCTACC  
CCAGTCGTGTCTGTGACAACCCCAAGCTTGCCCTCCGCAAGGACTTGTGTACTCAGCAATGCCGACTGCCTACAAC  
ACTGATTATTCAGTGACCAGCGCTGACCTGTGAGCCCTTCAAGGCTTCAACTCGCCAGGAATGCTGTGCTGGGA  
CAGGTGTGCGCCTGGCAGCAGCACCACCTAGGACAAGCAGCCCTCAGCTCTCTTGTTGCTGGAGGGCAGTTATCT  
CAGGGTTCCAATTTATCCATTAATACCAACCAAAAACATCAGCATCAAGTCCGAACCGATTTACCTCCTCGGGAT  
CGTATGACCCCATCGGGCTTCCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCCGCCGCCACCACCGCAGCCC  
CAGCCACAACCCCGCAGCCCCAGCCCCGACAGGAAATGGGGCGCTCCCCCTGTGGACAGTCTGAGCAGCTCTAGT  
AGCTCCTATGATGGCAGTGATCGGGAGGATCCACGGGGCGACTTCCATTCTCCAATTGTGCTTGGCCGACCCCCA  
AACACTGAGGACAGAGAAAGCCCTTCTGTAAAGCGAATGAGGATGGACGCGTGGGTGACCTAAGGCTTCCAAGCT  
GATGTTTGTACTTTTGTGTTACTGCAGTGACCTGCCCTACATATCTAAATCGGTAAATAAGGACATGAGTTAAAT  
ATATTTATATGTACATACATATATATATCCCTTTACATATATATGTATGTGGGTGTGAGTGTGTGTGTATGTGTG  
GGTGTGTGTTACATACACAGAATCAGGCACCTTACCTGCAAACCTCTTGAGGTCTGCAGATGTGTGTCCCATGGC  
AGACAAAGCACCCCTGTAGGCACAGACAAGTCTGGCACCTCCTTGAGCTACTTGTTTCGTAAAGATAACCAGTTTT  
TGCAGAGAAACGTGTACCCATATATAATTCTCCACACTAGCTTGAGAAACCTAGAGGGCCCCCTACTTGTTTT  
ATTTAACTGTGCAGTGACTGTAGTTACTTAAAGAGAAAATGCTTTGTAGAACAGAGCAGTAGAAAAGCAGGAACCA  
AGAAAGCAATACTGTACATAAAATGTCATTTATATTTTCCAACCTGGCATGGGTGTCTGTTGCAAAGGGGTGCAT  
GGGAAAGGGCTGTTGATATTAAAAACAAACAAAACAAAAAGCCCCACACATAACTGTTTTGCACGTGCAAAAAAT  
GTATTGGGTCAAGAAGTGATCTTTAGCTAATAAAGAAAAGAGAATAGAAAACACGCATGAGATATTCAGAAAATAC  
TAGCCTAGAAATATAGAGCATTAACAAAGGAAAAATTAATATATTAAGTTATAAATTGGAATATGTCAGAAGTTTCT  
TTTTACATTATATCTTAAAAATTAAGAAACTGATTTTAGCTCATGTATATTTTATATGAAAGAAAACACCCTT  
ATGAATTGATGACTATATATAAAATTATATTCACTACTTTTGAACACATTCTGCTATGAATTATTTATATAAGCC  
AAAGCTATATGTTGTAACTTTTTTTTTAGAGAAATAGCTTTATCTTGTTTAACTCTTTAGTTTTATTTTAAAGAGG  
GAAAACAAAAATATCTTGCAAGCAGAACCCTTGAAAAAAGGAATTC

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**FIGURE 147**

MGRKKIQITRIMDERNRQVTFTRKRFGLMKKAYELSVLCDCEIALIIFNSSNKLQYASTDMKVLLKYTEYNEP  
HESRTNSDIVEALNKKEHRCDSPPDTSYVLTPHTEEKYKKINEEFDNMMRNHKAIPGLPPQNFMSVTVPVTS  
PNALSYTNPGSSSLVSPSLAASSTLTDSSMLSPPQTTLHRNVSPGAPQRPPSTGNAGGMLSTDTLVPNGAGSSPV  
GNGFVNSRASPNLIGATGANSIGKVMPTKSPPPPGGGLGMNSRKPDLRVVIPISSSKGMMPPPLSEEELELNTQR  
ISSSQATQPLATPVVSVTTPSLPPQGLVYSAMPTAYNTDYSLSADLSALQGFNSPGMLSGLQVSAWQQHHLGQA  
ALSSLVAGGQLSQGSNLSINTNQNISIKSEPISPPRDRMTPSGFQQQQQQQQQQQPPPPPPQPPQPPQPPQPPQEM  
GRSPVDSLSSSSSSYDGSREDPRGDFHSPIVLGRPPNTEDRESPSVKRMRMDAWVT

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**FIGURE 148**

CAGGCCAGGACTCCACAAGGCTGGTCCCCTGCCCTGGAGCAACTTAAACAGGCCCTCTGGCCAGCCTGGAACCCCT  
GAGATGGCCCTCCAGCTCAGGCAGCAGTCCCTCGCCCGGCCCTTGATGAGAATGAGTTTCCCTTTGGGTGCCCTCCC  
ACCGTCTGCCAGGACCCAAAGGAGCCAGGGCTCTCTGCTGTGCAGGCTGTCTCTCTGAGAACCCGAGGAATGGC  
GAGGATCAGATCTGCCCCAAATGCAGAGGGGAAGACCTCCAGTCTATAAGCCCAGGAAGCCGTCTTCGAACTCAG  
GAGAAGGCTCACCCCGAGGTGGCTGAGGCTGGAAT TGGGTGCCCTTTGCAGGTGTCGGCTGCTCCTTCAAGGGA  
AGCCACAGTCTGTGCAAGAGCATGAGGTCACCTCCAGACCTCCCACCTAAACCTGCTGTTGGGGTTCATGAAA  
CAGTGGAAGGCCCGGCTGGGCTGTGGCTGGAGTC TGGGCCCATGGCCCTGGAGCAGAACCTGTCAGACCTGCAG  
CTGCAGGCAGCCGTGGAAGTGGCGGGGACCTGGAGGTCGATTGCTACCGGGCACCCCTGCTCCGAGAGCCAGGAG  
GAGCTGGCCCTGCAGCACTTCATGAAGGAGAAGCT TCTGGCTGAGCTGGAGGGGAAGCTGCGTGTGTTTGAGAAC  
ATTGTTGCTGTCTCAACAAGGAGGTGGAGGCCCTCCACCTGGCCCTGGCCACCTCTATCCACCAGAGCCAGCTG  
GACCGTGAGCGCATCCTGAGCTTGGAGCAGAGGGTGGTGGAGCTTCAGCAGACCCCTGGCCCAGAAAGACCAGGCC  
CTGGGCAAGCTGGAGCAGAGCTTGCCTCATGGAGGAGGCCCTCCTTCGATGGCACTTTCTGTGGAAGATCACC  
AATGTCAACAGGCGGTGCCATGAGTCGGCTGTGGCAGGACCGTCAGCCTCTTCTCCCCAGCCTTCTACACTGCC  
AAGTATGGCTACAAGTTGTGCTGCGGCTGTACCTGAATGGAGATGGCACTGGAAAAGAGAACCCATCTGTGCTC  
TTCATCGTGATCATGAGAGGGGAGTATGATGCGCTGCTGCCGTGGCCTTTCCGGAACAAGGTCACCTTCATGCTG  
CTGGACCAGAAACAACCGTGAGCACGCCATTGACGCCTTCCGGCCTGACCTAAGCTCAGCGTCCTTCCAGAGGCC  
CAGAGTGAAACCAACGTGGCCAGTGGATGCCACTCTTCTTCCCCCTCAGCAAACTGCAGTCACCCAAGCACGCC  
TACGTGAAGGACGACACAATGTTCTCAAGTGCATTGTGGAGACCAGCACTTAGGGTGGGCGGGGCTCTGAGGG  
AGCTCCAACCTCAGAAGGGAGCTAGCCAGAGGACTGTGATGCCCTGCCCTTGGCACCCAAGACCTCAGGGCACAAA  
GATGGGTGAAGGCTGGCATGATCCAAGCAAGACTGAGGGGTGCACTTCGGGCTGGCCATCTGGTTAGGATGGCAG  
GACGTGGGCTGGGCCCCACAAAGGCAAAGGTCCAGAAGGAGACAGGCAGAGCTGCTCCCTCTGCACGGACCATG  
CGACACTGGGAGGCCAGTGAGCCACTCCGGCCCCGAATGTTGAGGTGGACTCTCACCAAATGAGAAGAAAATGGA  
ACCAGGCTTGGAACCGTAGGACCCAAGCAGAGAAGCTCTCGGGCTAGGAAGATCTCTGCAGGGCCGCCAGGGAGA  
CCTGGACACAGGCCTGCTCTCTTTTTCTCCAGGGT CAGAAACAGGACCGGGTGGAAGGGATGGGGTGCCAGTTTG  
AATGCAGTCTGTCCAGGCTCGTCATTGGAGGTGAACAAGCAAACCCAGAGGGCTCCACTAGGACTTCAAATTGGG  
GGTTGGATTTGAAGACTTTTAAGTTTCCTTCCAGCCCAGAAAGTCTCTCATTCTAGGCCTCCTGGCCCAGGTGAG  
TCCTAGAGCTACAGGGGTTCTGGAAACATTGAGGAGCTTCCTGTCTCTCCAGCTCCTCACTCACCTTCAGTAACC  
CCCCTGGACTGACCTGGTCCACAGGGCACCTGCCACCTGGGCCTGGCAGCTCAGCTTCCCCAACACGCAGGAG  
CACACCCAGCCCCACATCCTGTGCCTCCATCAGCTAAACACCACGTCACTTCATGCAGGTGAAACCCAGTCACT  
GTGAGCTCCCAGGTGCAGCCAGAGGCACCTCAAGAAGAAGAGGGGCATAAACTTTCCTCTTCTGCTAGAGGCC  
CCACCTTTGGTGCTTTCAGAATCCCGTAACACCTGATTAAC TGAGGCATCCACTTCTTTCAGCAGACTGATCAG  
GACCTCCAAGCCACTGAGCAATGTATAACCCCAAAGAAATAATTTTTAGAACTCTCTTCGAAGTTTTCTTAAAAA  
AAAAAAAAAAAA

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**FIGURE 149**

MASSSGSSPRPAPDENEFFPGCPPTVCQDPKEPRALCCAGCLSENPRNGEDQICPKCRGEDLQSI SPGSRLRTQE  
KAHPEVAEAGIGCPFAGVGCSFKGSPQSVQEHEVT SQTSHLNLLGFMKQWKARLGCGL ESGPMALEQNLSDLQL  
QAAVEVAGDLEVDCYRAPCSESQEELALQHFMKEKLLAELEGKLRVFENIVAVLNKEVEASHLALATSIHQSQLD  
RERILSLEQRVVELQQT LAQKDQALGKLEQSLRLMEEASF DGTFLWKITNVTRRCHESACGRTVSLFSPAFYTAK  
YGYKLCLRLYLNGDGTGKRTHLSLFIVIMRGEYDALLPWPF RNKVTFMLLDQNNREHAIDAFRDLSSASFQRPQ  
SETNVASGCPLFFPLSKLQSPKHAYVKDDTMFLKCI VETST

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**FIGURE 150**

CGCGCGGCCCCCTGTCTCCGGCCCCGAGATGAATCCTGCGGCAGAAAGCCGAGTTCAACATCCTCCTGGCCACCGAC  
TCCTACAAGGTTACTCACTATAAACAATATCCACCCAAACACAAGCAAAGTTTATTCTACTTTGAATGCCGTGAA  
AAGAAGACAGAAAACCTCCAAATTAAGGAAGGTGAAATATGAGGAAACAGTATTTTATGGGTTGCAGTACATTCTT  
AATAAGTACTTAAAAGGTAAAGTAGTAACCAAAGAGAAAATCCAGGAAGCCAAAGATGTCTACAAAGAACATTTTC  
CAAGATGATGTCTTTAATGAAAAGGGATGGAACACTACATTCTTGAGAAGTATGATGGGCATCTTCCAATAGAAATA  
AAAGCTGTTCTGAGGGCTTTGTCATTCCCAGAGGAAATGTTCTCTTCACGGTGGAAAACACAGATCCAGAGTGT  
TACTGGCTTACAAATTGGATTGAGACTATTCTTGTTCAGTCTGGTATCCAATCACAGTGGCCACAAATTCTAGA  
GAGCAGAAGAAAATATTGGCCAAATATTTGTTAGAACTTCTGGTAACTTAGATGGTCTGGAATACAAGTTACAT  
GATTTTGGCTACAGAGGAGTCTCTTCCCAAGAGACTGCTGGCATAGGAGCATCTGCTCACTTGGTTAACTTCAAA  
GGAACAGATACAGTAGCAGGACTTGCTCTAATTAAAAAATATTATGGAACGAAAAGATCCTGTTCCAGGCTATTCT  
GTTCCAGCAGCAGAACACAGTACCATAACAGCTTGGGGGAAAGACCATGAAAAAGATGCTTTTGAACATATTGTA  
ACACAGTTTTTCATCAGTGCCTGTATCTGTGGTCAGCGATAGCTATGACATTTATAATGCGTGTGAGAAAATATGG  
GGTGAAGATCTAAGACATTTAATAGTATCGAGAAGTACACAGGCACCACTAATAATCAGACCTGATTCTGGAAAC  
CCTCTTGACACTGTGTTAAAGGTTTTGGAGATTTTAGGTAAGAAGTTTTCTGTACTGAGAACTCAAAGGGTTAC  
AAGTTGCTGCCACCTTATCTTAGAGTTATTCAAGGGGATGGAGTAGATATTAATACCTTACAAGAGATTGTAGAA  
GGCATGAAACAAAAAATGTGGAGTATTGAAAATATTGCCTTCGGTCTGGTGGAGGTTTGCTACAGAAGTTGACA  
AGAGATCTCTTGAATTGTTCCCTTCAAGTGTAGCTATGTTGTAACATAATGGCCTTGGGATTAACGTCTTCAAGGAC  
CCAGTTGCTGATCCCCAACAAAAGGTCCAAAAAGGGCCGATTATCTTTACATAGGACGCCAGCAGGGAATTTTGT  
ACACTGGAGGAAGGAAAAGGAGACCTTGAGGAATATGGTCAGGATCTTCTCCATACTGTCTTCAAGAATGGCAAG  
GTGACAAAAGCTATTTCATTTGATGAAATAAGAAAAAATGCACAGCTGAATATTGAACTGGAAGCAGCACATCAT  
TAGGCTTTATGACTGGGTGTGTGTTGTGTATGTAATACATAATGTTTATTGTACAGATGTGTGGGTTTTGTGT  
TTTATGATACATTACAGCCAAATTATTTGTTGGTTTATGGACATACTGCCCTTTCATTTTTTTCTTTTCCAGTG  
TTTAGGTGATCTCAAATTAGGAAATGCATTTAACCATGTAAAAGATGAGTGCTAAAGTAAGCTTTTTAGGGCCCT  
TTGCCAATAGGTAGTCATTCAATCTGGTATTGATCTTTTCACAAATAACAGAACTGAGAACTTTTATATATAAC  
TGATGATCACATAAAACAGATTTGCATAAAATTACCATGATTGCTTTATGTTTATATTTAACTTGTATTTTTGTA  
CAAACAAGATTGTGTAAGATATATTTGAAGTTTCAGTGATTTAACAGTCTTTCCAACTTTTTCATGATTTTTATGA  
GCACAGACTTTCAAGAAAATACTTGAAAATAAATTACATTGCCTTTTGTCCATTAATCAGCAAATAAAACATGGC  
CTTAACAAAGTTGTTTGTGTTATTGTACAATTTGAAAATTATGTGCGGACATACCCTATAGAATTACTAACCTTA  
CTGCCCCCTGTAGAATATGTATTAATCATTCTACATTAAAGAAAATAATGGTTCTTACTGGAATGTCTAGGCACT  
GTACAGTTATTATATATCTTGGTTGTTGTATTGTACCAGTGAAATGCCAAATTTGAAAGGCCGTACTGCAATTT  
TATATGTCAGAGATTGCCTGTGGCTCTAATATGCACCTCAAGATTTTAAGGAGATAATGTTTTTAGAGAGAATTT  
CTGCTTCCACTATAGAATATATACATAAATGTAAATACTTACAAAAGTGG

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**FIGURE 151**

MNPAAEAEFNILLATDSYKVTHYKQYPPNTSKVSYFECREKKTENSKLRKVKEETVIFYGLQYILNKYLK GKVV  
TKEKIQEAKDVYKEHFQDDVFNEKGWNYILEKYDGHLP I E I KAVPEGFVIPRGNVLEFVENTDPECYWLTNWIET  
ILVQSWYPITVATNSREQKKILAKYLLETSGNLDGLEYLEYKLHDFGYRGVSSQETAGIGASAHLVNFKGTDTVAGLA  
LIKYYGTDKDPVPGYSVPAAEHSTITAWGKDHEKDAFEHIVTQFSSVPVSVVSDSYDIYNACEKIWGEDLRHLIV  
SRSTQAPLIIRPD SGNPLD TVLKVLEILGKKFPVTENSKGYKLLPPYLRVIQGDGVDINTLQEIVEGMKQKMWSI  
ENIAFGSGGGLLQKLTRDLLNCSFKCSYVVTNGLGINVFKDPVADPNKRSKKGRLSLHRT PAGNFVTLEEGKGD L  
EEYGQDLLHTVFKNGKVTKSYSFDEIRKNAQLNIELEAAHH



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**FIGURE 152**

CCGCAGCCATGACCCCGCAGCTTCTCCTGGCCCTTGTCTCTGGGCCAGCTGCCCCGCCCTGCAGTGGAAGGAAAG  
GGCCCCCAGCAGCTCTGACACTGCCCCGGGTGCAATGCCGAGCCTCTCGGTACCCGATCGCCGTGGATTGCTCCT  
GGACCCTGCCGCCTGCTCCAAACTCCACCAGCCCCGTGTCTTCATTGCCACGTACAGGCTCGGCATGGCTGCCC  
GGGGCCACAGCTGGCCCTGCCTGCAGCAGACGCCAACGTCCACCAGCTGCACCATCACGGATGTCCAGCTGTTCT  
CCATGGCTCCCTACGTGCTCAATGTCACCGCCGTCCACCCCTGGGGCTCCAGCAGCAGCTTCGTGCCTTTTCATAA  
CAGAGCACATCATCAAGCCCGACCCTCCAGAAGGCGTGCGCCTAAGCCCCCTCGCTGAGCGCCAGCTACAGGTGC  
AGTGGGAGCCTCCCGGGTCTGGCCCTTCCCAGAGATCTTCTCACTGAAGTACTGGATCCGTTACAAGCGTCAGG  
GAGCTGCGCGCTTCCACCGGGTGGGGCCATTGAAGCCACGTCTTCATCCTCAGGGCTGTGCGGGCCCCGAGCCA  
GGTACTACGTCCAAGTGGCGGCTCAGGACCTCACAGACTACGGGGAAGTGAAGTACTGGAGTCTCCCCGCCACTG  
CCACAATGAGCCTGGGCAAGTAGCAAGGGCTTCCCGCTGCCTCCAGACAGCACCTGGGTCTCGCCACCCTAAGC  
CCCGGGACACCTGTTGGAGGGCGGATGGGATCTGCCTAGCCTGGGCTGGAGTCCTTGCTTTGCTGCTGCTGAGCT  
GCCGGGCAACCTCAGATGACCGACTTTTCCCTTTGAGCCTCAGTTTCTCTAGCTGAGAAATGGAGATGTACTACT  
CTCTCCTTTACCTTTACCTTTACCACAGTGCAGGGCTGACTGAAGTGTCACTGTGAGATATTTTTTATTGTTTAA  
TTAGAAAAGAAATTGTTGTTGGGCTGGGCGCAGTGGATCGCACCTGTAATCCCAGTCACTGGGAAGCCGACGTGGG  
AGGGTAGCTTGAGGCCAGGAGCTCGAAACCAGTCCGGGCCACACAGCAAGACCCCATCTCTAAAAAATTAATATA  
AATATAAAATAAAAAAAAAAAAAA

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**FIGURE 153**

MTPQLLLALVLWASCPPCSGRKGPPAALTLPVQCRASRYPIAVDCSWTLPPAPNSTSPVSFIATYRLGMAARGH  
SWPCLQQTPTSTSTCTITDVQLFSMAPYVLNVTAVHPWGSSSSSFVPFITEHIIKPDPPPEGVRLSPLAERQLQVQWE  
PPGSWPFPEIFSLKYWIRYKRQGAARFHRVGPIEATSFILRAVRPRARYYVQVAAQDLTDYGELSDWSLPATATM  
SLGK

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**FIGURE 154**

GCAGCCGCCACCGCCGCCGCCGCCGCCACCAGAGCCGCCCTGTCCGCGCCGCGCCTCGGCAGCCGGAACAGGGCC  
GCCGTCGGGGAGCCCCAACACACGGTCCACAGCTCATCATGATGGACTTGGAGCTGCCGCCGCCGGGACTCCCGT  
CCCAGCAGGACATGGATTTGATTGACATACTTTGGAGGCAAGATATAGATCTTGGAGTAAGTCGAGAAGTATTTG  
ACTTCAGTCAGCGACGGAAAGAGTATGAGCTGGAAAAACAGAAAAAACTTGAAAAGGAAAGACAAGAACAACCTCC  
AAAAGGAGCAAGAGAAAGCCTTTTTTCGCTCAGTTACAACCTAGATGAAGAGACAGGTGAATTTCTCCCAATTCAGC  
CAGCCCAGCACATCCAGTCAGAAACCAGTGGATCTGCCAACTACTCCCAGGTTGCCACATTCCCAAATCAGATG  
CTTTGTACTTTGATGACTGCATGCAGCTTTTGGCGCAGACATTCCCGTTTGTAGATGACAATGAGGTTTCTTCGG  
CTACGTTTCAGTCACCTGTTCTGATATTCCCGGTACATCGAGAGCCCAGTCTTCATTGCTACTAATCAGGCTC  
AGTCACCTGAAACTTCTGTTGCTCAGGTAGCCCCTGTTGATTTAGACGGTATGCAACAGGACATTGAGCAAGTTT  
GGGAGGAGCTATTATCCATTCTGAGTTACAGTGTCTTAATATTGAAAATGACAAGCTGGTTGAGACTACCATGG  
TTCCAAGTCCAGAAGCCAACTGACAGAAGTTGACAATTATCATTTTTACTCATCTATACCCTCAATGGAAGAAAG  
AAGTAGGTAAGTGTAGTCCACATTTTCTTAATGCTTTTGAGGATTCTTCAGCAGCATCCTCTCCACAGAAGACC  
CCAACCAGTTGACAGTGAACCTATTAAATTCAGATGCCACAGTCAACACAGATTTTGGTGATGAATTTTATTCTG  
CTTTCATAGCTGAGCCAGTATCAGCAACAGCATGCCCTCACCTGCTACTTTAAGCCATTCACTCTCTGAACCTC  
TAAATGGGCCCATTGATGTTTCTGATCTATCACTTTGCAAAGCTTTCAACCAAAACCACCCTGAAAGCACAGCAG  
AATTCAATGATTCTGACTCCGGCATTTCCTAAACACAAGTCCCAGTGTGGCATCACCAGAACCTCAGTGGAAT  
CTTCCAGCTATGGAGACACACTACTTGGCCTCAGTGATTCTGAAGTGGAAGAGCTAGATAGTGGCCCTGGAAGTG  
TCAAACAGAATGGTCCTAAACACCAGTACATTCTTCTGGGATATGGTACAACCCTTGTCAACATCTCAGGGGC  
AGAGCACTCACGTGCATGATGCCCAATGTGAGAACACACCAGAGAAAGAAATTGCCTGTAAGTCCTGGTCATCGGA  
AAACCCCATTCACAAAAGACAAACATTCAAGCCGCTTGGAGGCTCATCTCACAAGAGATGAACCTAGGGCAAAAG  
CTCTCCATATCCCATTCCCTGTAGAAAAATCATTAACTCCCTGTTGTTGACTTCAACGAAATGATGTCCAAAG  
AGCAGTTCAATGAAGCTCAACTTGCAATTAATTCGGGATATACGTAGGAGGGGTAAGAATAAAGTGGCTGCTCAGA  
ATTGCAGAAAAAGAAAAGTGGAAAATATAGTAGAACTAGAGCAAGATTTAGATCATTGAAAGATGAAAAAGAAA  
AATTGCTCAAAAGAAAAAGGAGAAAATGACAAAAGCCTTACCTACTGAAAAACAACCTCAGCACCTTATATCTCG  
AAGTTTTTCAGCATGCTACGTGATGAAGATGAAAAACCTTATTCTCCTAGTGAATACTCCCTGCAGCAAACAAGAG  
ATGGCAATGTTTTCTTGTTCCTAAAAGTAAGAAGCCAGATGTTAAGAAAAACTAGATTTAGGAGGATTTGACCT  
TTTCTGAGCTAGTTTTTTTGTACTATTATACTAAAAGCTCCTACTGTGATGTGAAATGCTCATACTTTATAAGTA  
ATTCTATGCAAAATCATAGCCAAAAGTATAGAAAATAATACGAACTTTAAAAAGCATTGGAGTGTCAGTAT  
GTTGAATCAGTAGTTTCACTTTAACTGTAAACAATTTCTTAGGACACCATTTGGGCTAGTTTCTGTGTAAGTGTA  
AATACTACAAAAACTTATTTATACTGTTCTTATGTCAATTTGTATATTATAGATTTATATGATGATATGACATC  
TGGCTAAAAAGAAATTTATTGCAAACTAACCCTATGTACTTTTTTATAAATACTGTATGGACAAAAAATGGCAT  
TTTTTATATTAAATGTTTAGCTCTGGCAAAAAAATAATTTAAGAGCTGGTACTAATAAAGGATTATTATGA  
CTGTTAAAAA

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**FIGURE 155**

MMDLELPPPGGLPSQQDMDLIDILWRQDIDLGVSRVDFDSQRRKEYELEKQKKLEKERQEQLQKEQEKAFFAQLQ  
LDEETGEFLPIQPAHQISETSGSANYSQVAHIPKSDALYFDDCMQLLAQTFFVDDNEVSSATFQSLVPDIPGH  
IESPVFIATNQAQSPETSVAQVAPVDLDGMQQDIEQVWEELLSIPELQCLNIENDKLVETTMVPSPPEAKLTEVDN  
YHFYSSIPSMEKEVGNCSPHFLNAFEDSFSSILSTEDPNQLTVNSLNSDATVNTDFGDEFYSAFIAEPSISNSMP  
SPATLSHSLSELLNGPIDVSDLSLCKAFNQNHPESTAEFNDSDSGISLNTSPSVASPEHSVESSSYGDTLLGLSD  
SEVEELDSAPGSVKQNGPKTPVHSSGDMVQPLSPSQGSTHVHDAQCENTPEKELPVSPGHRKTPFTKDKHSSRL  
EAHLTRDELRAKALHIPFPVEKIINLPVVDFNEMMSKEQFNEAQLALIRDIRRRGKNKVAAQNCRRKLENIVEL  
EQDLHLKDEKEKLLKEKGENDKSLHLLKKQLSTLYLEVFSMLRDEDGKPYSPSEYSLQQTRDGNVFLVPKSKKP  
DVKKN

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**FIGURE 156A**

TGCCTTGACCAGGACTTGGGACTTTGCGAAAGGATCGCGGGGCCCGGAGAGGTGTTGGAGAGCACAATGGCTGAA  
CAAGTCCTTCCTCAGGCTTTGTATTTGAGCAATATGCGGAAAGCTGTGAAGATACGGGAGAGAAGTCCAGAAGAC  
ATTTTAAACCTACTAATGGGATCATTTCATCATTTTAAACCATGCACCGATACACACTGGAAATGTTTCAGAACT  
TGCCAGTTTTGTCTCAGTTTCGGGAGATCATCCACAAAGCCCTCATCGACAGAAACATCCAGGCCACCCTGGAA  
AGCCAGAAGAACTCAACTGGTGTGAGAAAGTCCGGAAGCTTGTGGCGCTGAAAACGAACGGTGACGGCAATTGC  
CTCATGCATGCCACTTCTCAGTACATGTGGGGCGTTCAGGACACAGACTTGGTACTGAGGAAGGCGCTGTTTCAGC  
ACGCTCAAGGAAACAGACACACGCAACTTTAAATTCCGCTGGCAACTGGAGTCTCTCAAATCTCAGGAATTTGTT  
GAAACGGGGCTTTGCTATGATACTCGGAACTGGAAATGATGAATGGGACAATCTTATCAAATGGCTTCCACAGAC  
ACACCCATGGCCCGAAGTGGACTTCAGTACAACCTCACTGGAAGAAATACACATATTTGTCTTTGCAACATCCTC  
AGAAGGCCAATCATTGTTCATTTAGACAAAATGCTAAGAAGTTTGGAATCAGGTTCCAATTTGCCCCCTTTGAAA  
GTGGGTGGAATTTACTTGCCTCTCCACTGGCCTGCCAGGAATGCTACAGATACCCCATTTGTTCTCGGCTATGAC  
AGCCATCATTTTGTACCCTTGGTGACCCTGAAGGACAGTGGGCGTGAAATCCGAGCTGTTCCACTTGTTAACAGA  
GACCGGGGAAGATTTGAAGACTTAAAAGTTCACTTTTGACAGATCCTGAAAATGAGATGAAGGAGAAGCTCTTA  
AAAGAGTACTTAATGGTGATAGAAATCCCCGTCCAAGGCTGGGACCATGGCACAACCTCATCTCATCAATGCCGCA  
AAGTTGGATGAAGCTAACTTACCAAAGAAATCAATCTGGTAGATGATTACTTTGAACTTGTTTCAGCATGAGTAC  
AAGAAATGGCAGGAAAACAGCGAGCAGGGGAGGAGAGAGGGGCACGCCAGAATCCCATGGAACCTTCCGTGCC  
CAGCTTTCTCTCATGGATGTAAATGTGAAACGCCCACTGCCCTTCTTCATGTCTGTGAACACCCAGCCTTTA  
TGCCATGAGTGCTCAGAGAGGCGGCAAAGAATCAAACAACTCCCAAAGCTGAACTCCAAGCGGGGCCCTGAG  
GGGCTCCCTGGCATGGCGCTCGGGGCTCTCGGGGAGAAGCCTATGAGCCCTTGGCGTGGAACCTGAGGAGTCC  
ACTGGGGGGCCTCATTCGGCCCCACCGACAGCACCAGCCCTTTTCTGTTTCAGTGAGACCACTGCCATGAAGTGC  
AGGAGCCCCGGCTGCCCTTTCACACTGAATGTGCAGCACAACGGATTTTGTGAACGTTGCCACAACGCCCGGCAA  
CTTCAGCCAGCCACGCCCCAGACCACACAAGGCACTTGGATCCCGGGAAGTGCCAAGCCTGCCTCCAGGATGTT  
ACCAGGACATTTAATGGGATCTGCAGTACTTGCTTCAAAGGACTACAGCAGAGGCCTCCTCCAGCCTCAGCACC  
AGCCTCCCTCCTTCTGTACCAGCGTTCCAAGTCAGATCCCTCGCGGCTCGTCCGGAGCCCTCCCGCATTCT  
TGCCACAGAGCTGGAACGACGCCCCGTGCTGGCTGCCTGTCTCAAGCTGCACGGACTCCTGGGGACAGGACGGGG  
ACGAGCAAGTGCAGAAAAGCCGGCTGCGTGTATTTTGGGACTCCAGAAAACAAGGGCTTTTGCACACTGTGTTTC  
ATCGAGTACAGAGAAAACAACATTTTGCTGCTGCCTCAGGGAAAGTCAGTCCACAGCGTCCAGGTTCCAGAAC  
ACCATTCCGTGCCTGGGGAGGGAATGCGGCACCCTTGAAGCACCATGTTTGAAGGATACTGCCAGAAGTGTTC  
ATTGAAGCTCAGAATCAGAGATTTTCATGAGGCCAAAAGGACAGAAGAGCAACTGAGATCGAGCCAGCGCAGAGAT  
GTGCTCGAACCACACAAGCACCTCAAGGCCCAAGTGCGCCCGGGCTCCTGCAAGAACATCCTGGCCTGCCGC  
AGCGAGGAGCTCTGCATGGAGTGTGAGCATCCCAACCAGAGGATGGGCCCTGGGGCCACCGGGGTGAGCCTGCC  
CCCGAAGACCCCCCAAGCAGCGTTGCCGGGCCCCCGCTGTGATCATTTTGGCAATGCCAAGTGCAACGGCTAC  
TGCAACGAATGCTTTTCAGTTCAAGCAGATGTATGGCTTAACCGGAAACAGGTGGGTACCTCCTGCAAGAAGTGGG  
GCCTCGAGCTGTGAGTCATCATGGTGTATCCTCTGAACCCCTCAGCTGCCACTGCAACAGTGGGCTTAAGGGTG  
TCTGAGCAGGAGAGGAAAGATAAGCTCTTCGTGGTGCCACGATGCTCAGGTTTGGTAACCCGGGAGTGTTCCTCA  
GGTGGCCTTAGAAAGCAAAGCTTGTAAGTGGCAAGGGATGATGTGAGATTCAGCCCAAGGTTCTCCTCTCCTAC  
CAAGCAGGAGGCCAGGAACCTCTTTGGACTTGGAAAGGTGTGCGGGGACTGGCCGAGGCCCTGCACCTGCGCAT  
CAGGACTGCTTCATCGTCTTGCTGAGAAAGGGAAAAGACACACAAGTCGCGTGGGTGGAGAAAGCCAGAGCCAT  
TCCACCTCCCCCTCCCCCAGCATCTCTCAGAGATGTGAAGCCAGATCCTCATGGCAGCGAGGCCCTCTGCAAGAAG  
CTCAAGGAAGCTCAGGGAAAATGGACGTATTAGAGAGTGTGTTGTAGTTTCATGGTTTTTCCCTACCTGCCCGGTT  
CCTTTCTTGAGGACCCGGCAGAAATGCAGAACCATCCATGGACTGTGATTCTGAGGCTGCTGAGACTGAACATGT  
TCACATTGACAGAAAAACAAGCTGCTCTTTATAATATGCACCTTTTAAAAAATTAGAATATTTTACTGGGAAGAC  
GTGTAACCTCTTTGGGTATTACTGTCTTTACTTCTAAAGAAGTTAGCTTGAAGTGGAGTAAAAGTGTGTACAT  
ATATAATATACCCTTACATTATGTATGAGGGATTTTTTTAAATTATATTGAAATGCTGCCCTAGAAGTACAATAG  
GAAGGCTAAATAATAAACCTGTTTTCTGGTTGTTGTTGGGGCATGAGCTTGTGTATACACTGCTTGATAAAC  
TCAACCAGCTGCCTTTTTTAAAGGGAGCTCTAGTCCTTTTTGTGTAATTCATTTATTTATTTATTACAACTTC  
AAGATTATTTAAGTGAAGATATTTCTTCAGCTCTGGGAAAATGCCACAGTGTCTCCTGAGAGAACATCCTTGC  
TTTGAGTCAGGCTGTGGGCAAGTTTCTGACCACAGGGAGTAAATTGGCCTCTTTGATACACTTTTGCTTGCTCC

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**FIGURE 156B**

CCAGGAAAGAAGGAATTGCATCCAAGGTATACATACATATTCATCGATGTTTCGTGCTTCTCCTTATGAAACTCC  
AGCTATGTAATAAAAAAATACTCTGTGTTCTGTTAATGCCTCTGAGTGTCTACCTCCTTGGAGATGAGATAG  
GGAAGGAGCAGGGATGAGACTGGCAATGGTCACAGGGAAAGATGTGGCCTTTTGTGATGGTTTTATTTCTGTTA  
ACACTGTGTCCTGGGGGGGCTGGGAAGTCCCCTGCATCCCATGGTACCCTGGTATTGGGACAGCAAAAGCCAGTA  
ACCATGAGTATGAGGAAATCTCTTTCTGTTGCTGGCTTACAGTTTCTCTGTGTGCTTTGTGGTTGCTGTCATATT  
TGCTCTAGAAGAAAAAAAAAAAAAGGAGGGGAAATGCATTTTCCCCAGAGATAAAGGCTGCCATTTTGGGGGTCTG  
TACTTATGGCCTGAAAAATATTTGTGATCCATAACTCTACACAGCCTTTACTCATACTATTAGGCACACTTTCCCC  
TTAGAGCCCCCTAAGTTTTTCCCAGACGAATCTTTATAATTTCCCTTTCCAAAGATACCAATAAACTTCAGTGTT  
TTCATCTAATTCTCTTAAAGTTGATATCTTAATATTTGTGTTGATCATTATTTCCATTCTTAATGTGAAAAAAA  
GTAATTATTTATACTTATTATAAAAAAGTATTTGAAATTTGCACATTTAATTGTCCTAATAGAAAGCCACCTATT  
CTTTGTTGGATTTCTTCAAGTTTTTCTAAATAAATGTAACCTTTTACAAGAGTCAACATTAAAAAATAAATTATT

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**FIGURE 157**

MAEQVLPQALYLSNMRKAVKIRERTPEDIFKPTNGIIHHFKTMHRYTLEMFRTCQFCPQFREIIHKALIDRNIQA  
TLESQKKLNWCREVRKLVALKTNGDGNCLMHATSQYMWGVQDIDLVLRKALFSTLKETDTRNFKFRWQLESLSKSQ  
EFVETGLCYDTRNWNDEWDNLIKMASTDTPMARSGLOQNSLEEIHIFVLCNILLRPIIIVISDKMLRSLESGSNFA  
PLKVGGIYLPPLHWPQECYRYPIVLGYDSHHFVPLVTLKDSGPEIRAVPLVNRDRGRFEDLKVHFLTDPENEMKE  
KLLKEYLMVIEIPVQGWHDGTTHLINAAKLDEANLPKEINLVDDYFELVQHEYKKWQENSEQGRREGHAQNPMEP  
SVPQLSLMDVKCETPNCPFFMSVNTQPLCHECSERRQKNQNLKPKLNSKPGPEGLPGMALGASRGEAYEPLAWNPF  
EESTGGPHSAPPTAPSPFLFSETTAMKCRSPGCPFTLNVQHNGFCERCHNARQLHASHAPDHTRHLDPGKCQACL  
QDVTRTFNGICSTCFKRTTAEASSSLSTSLPPSCHQRSKSDPSRLVRSPPHSCHRAGNDAPAGCLSQAARTPGD  
RTGTSKCRKAGCVYFGTPENKGFCTLCFIEYRENKHFAAASGKVSPASRFQNTIPCLGRECGTLGSTMFEGYCQ  
KCFIEAQNQRFHEAKRTEEQLRSSQRRDVPRTTQSTSRPKCARASCKNILACRSEELCMECQHPNQRMGPGAHRG  
EPAPEDPPKQRCRAPACDHFGNAKCNNGYCNECFQFKQMYG

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**FIGURE 158**

GTAGTGGTGCCGAC<sup>1</sup>TCCTGTTGTTT<sup>2</sup>GAGGCCGGGTTGGGGGTGTGCGATTGTGTGGGACGGTCTGGGGCAGCCC  
AGCAGCGGCTGACCC<sup>3</sup>TCTGCCTGCGGGGAAGGGAGTCGCCAGGCGGCCGTC<sup>4</sup>CATGCGGTGTGCGGAGAGCCAGCTC  
AAGAAAATGGTGTCCAAGTACAAATACAGAGACCTAACTGTACGTGAAACTGTCAATGTTATTACTCTATACAAA  
GATCTCAAACCTGTTT<sup>5</sup>TGGATT<sup>6</sup>CATATGTTTT<sup>7</sup>TAACGATGGCAGTTCCAGGGAACTAATGAACCTCACTGGAACA  
ATCCCTGTGCCTTATAGAGGTAATACATACAATATTCCAATATGCCTATGGCTACTGGACACATACCCATATAAT  
CCCCCTATCTGTTTT<sup>8</sup>GTTAAGCCTACTAGTTCAATGACTATTA<sup>9</sup>AAACAGGAAAGCATGTTGATGCAAATGGGAAG  
ATATATCTTCCTTATCTACATGAATGGAAACACCCACAGTCAGACTTGT<sup>10</sup>TGGGGCTTATTCAGGTCATGATTGTG  
GTATTTGGAGATGAACCTCCAGTCTTCTCTCGTCCTATTT<sup>11</sup>CGGCATCCTATCCGCCATACCAGGCAACGGGGCCA  
CCAAATACTTCCTACATGCCAGGCATGCCAGGTGGAATCTCTCCATACCCATCCGGATACCCTCCCAATCCCAGT  
GGTTACCCAGGCTGTCTT<sup>12</sup>ACCCACCTGGTGGTCCATATCCTGCCACAACAAGTTCTCAGTACCCTTCTCAGCCT  
CCTGTGACCACTGTTGGTCCCAGTAGGGATGGCACAATCAGCGAGGACACCATCCGAGCCTCTCTCATCTCTGCG  
GTCAGTGACAAACTGAGATGGCGGATGAAGGAGGAAATGGATCGTGCCAGGCAGAGCTCAATGCCTTGAAACGA  
ACAGAAGAAGACCTGAAAAAGGGTCACCAGAAACTGGAAGAGATGGTTACCCGTTTAGATCAAGAAGTAGCCGAG  
GTTGATAAAAAACATAGAACTTTT<sup>13</sup>GAAAAAGAAGGATGAAGAACTCAGTTCTGCTCTGGA<sup>14</sup>AAAAATGGAAATCAG  
TCTGAAAACAATGATATCGATGAAGTTATCATTCCACAGCTCCCTTATACAAACAGATCCTGAATCTGTATGCA  
GAAGAAAACGCTATTGAAGACACTATCTTTTACTTGGGAGAAGCCTTGAGAAGGGGCGTGATAGACCTGGATGTC  
TTCCTGAAGCATGTACGTCTTCTGTCCCGTAAACAGTTCCAGCTGAGGGCACTAATGCA<sup>15</sup>AAAAAGCAAGAAAGACT  
GCCGGTCTCAGTGACCTCTAC<sup>16</sup>TGACTTCTCTGATACCAGCTGGAGGTTGAGCTCTTCTTAAAGTATTCTTCTCTT  
CCTTTTATCAGTAGGTGCCCAGAATAAGTTATTGCAGTTTATCATTCAAGTGAAAAATATTTTGAATCAATAATA  
TATTTTCTGTTTTCTTTTGGTAAAGACTGGCTTTTATTAATGCACTTTCTATCCTCTGTAAACTTTTTGTGCTGA  
ATGTTGGGACTGCTAAATAAAATTTGTTGCATAAAAAAAAAAAAAAAAAA



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**FIGURE 159**

MAVSESQLKKMVS KYRDLTVRET VNVITLYKDLKPVLDSYVFNDGSSRELMNLTGTIPV  
PYRGNTYNIPICLW  
LLDTYPYNPPICFVKPTSSMTIKTGKHVDANGKIYLPYLHEWKHPQSDLLGLIQVMIVVFGDEPPVFSRPISASY  
PPYQATGPPNTSYMPGMPGGISPYPSGYPPNPSGYPGCPYPPGGPYPATTSSQYPSQPPVTTVGPSRDGTISED  
TIRASLISAVSDKLRWRMKEEMDRAQAELNALKRTEEDLKKGHQKLEEMVTRLDQEVAEVDKNIELLKKKDEELSS  
ALEKMENQSENNDIDEV I IPTAPLYKQILNLYAEENAIEDTIFYLGEALRRGVIDLDVFLKHVRLLSRKQFQLRA  
LMQKARKTAGLS DLY

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**FIGURE 160**

CGGAGCCAGCGTGGGAGGCCGCTGCCGTCGCGCGCCTTG GTTTTTCTGTTTCCTTTTTTTTTTTTTTTTTTAACTT  
CCTGCCTATCACACGCAGCCATCAGCCCACAAAGACATGACTACCAACGCGGGCCCTTGCACCCATACTGGCCT  
CAGCACCTAAGACTGGACAACCTTTGTACCTAATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTC  
ACAGGGGTCTTAGTCGTGACCACATGGCTGTTGTCAGGTCGTGCTGCGGTTGTCCCATTTGGGGACTTGGCGGCGA  
CTGTCCCTGTGCTGGTTTGCAGTGTGTGGGTTCAATCACCTGGTGATCGAGGGCTGGTTCGTTCTCTACTACGAA  
GACCTGCTTGGAGACCAAGCCTTCTTATCTCAACTCTGGAAAGAGTATGCCAAGGGAGACAGCCGATACATCCTG  
GGTGACAACTTCACAGTGTGCATGGAAACCATCACAGCTTGCCTGTGGGGACCACTCAGCCTGTGGGTGGTGATC  
GCCTTTCTCCGCCAGCATCCCCCTCCGCTTCATTCTACAGCTTGTGGTCTCTGTGGGCCAGATCTATGGGGATGTG  
CTCTACTTCCTGACAGAGCACCGCGACGGATTCCAGCACGGAGAGCTGGGCCACCCTCTCTACTTCTGGTTTTAC  
TTTGTCTTCATGAATGCCCTGTGGCTGGTGCTGCCTGGAGTCCTTGCTGCTTGATGCTGTGAAGCACCTCACTCAT  
GCCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAACTTGAGGAGTGGTGGACCAGGCTCGA  
ACACTGGCCGAGGAGGAGCTCTCTGCCTGCCAGAAGAGTCTAGTCCTGCTCCACAGTTTGGAGGGACAAAGCTA  
ATTGATCTGTCACTCAGGCTCATGGGCAGGCACAAGAAGGGGAATAAAGGGGCTGTGTGAAGGCACTGCTGGG  
AGCCATTAGAACACAGATACAAGAGAAGCCAGGAGGTCTATGATGGTGACGATTTTTAAATCAGGAAATAAAAG  
ATCTTGACTCTAAAAAAAAAAAAA

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**FIGURE 161**

MTTNAGPLHPYWPQHRLDNFVPNDRPTWHILAGLFSVTGVLVTTWLLSGRAAVVPLGTWRRSLCWFVCGFI  
HLVIEGWFVLYYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVIAFLRQHPLRFIL  
QLVVSVGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVLPGVLVLDAVKHLTHAQSTLDAKATKA  
KSKKN

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**FIGURE 162**

TTGGAACACCTGGCGAGTCCTCGGTGTCGGTGGCCGGCAGTCATCTCGCGGCCGTTTCAGAATTATAAGGCTGTCT  
GCAGAGATTTGAAAAATGGCAACAAATGAAAGTGTGAGCATCTTTAGTTTCAGCATCCTTGGCTGTGGAATATGTA  
GATTCACTTTTACCTGAGAATCCTCTGCAAGAACCATTTAAAAATGCTTGGAACTATATGTTGAATAATTATACA  
AAGTTCCAGATTGCAACATGGGGATCCCTTATAGTTCATGAAGCCCTTTATTTCTTATTCTGTTTACCTGGATTT  
TTATTTCAATTTATACCTTATATGAAAAAATACAAAATTCAAAAGGATAAGCCAGAGACATGGGAAAACCAATGG  
AAGTGTTTCAAAGTTCTTCTCTTTAATCACTTCTGTATCCAGCTGCCTTTGATTTGTGGAACCTATTATTTTACA  
GAGTATTTCAATATTCCTTATGATTGGGAAAGAATGCCAAGATGGTATTTTCTTTTGGCAAGATGCTTTGGTTGT  
GCAGTCATTGAAGATACTTGGCACTATTTTCTGCATAGACTCTTACACCACAAAAGAATATACAAGTATATTCAT  
AAAGTTTCATCATGAGTTTTCAGGCTCCATTTGGAATGGAAGCTGAATATGCACATCCTTTGGAGACTCTAATTCCT  
GGAAGTGGATTTTTTCATTGGAATCGTGCTTTTGTGTGATCATGTAATTCCTTTTGGGCATGGGTGACCATTTCGT  
TTATTAGAACTATTGATGTCCATAGTGGTTATGATATTCCTCTCAACCCTTTAAATCTGATCCCTTTCTATGCT  
GGTTCTCGGCATCATGATTTCCACCACATGAACCTTCATTGGAACTATGCTTCAACATTTACATGGTGGGATCGA  
ATTTTTGGAACAGACTCTCAGTATAATGCCTATAATGAAAAGAGGAAGAAGTTTGAGAAAAAGACTGAATATA  
TCTCACGTAAACCTTCCTGAAAGATAAACGTTTTCTGAATTCAGAACTAGTAGCTAACATTGCTTCTGGAGAG  
CAGAAATAAGCATGTCTTCTGGCTACTAAGTGATAAAAAGAACATTAACAACCTTTAATTACCTTCCTAGTGGGA  
ACTTTTTCTACTTTACCTACAAGTTCTATATATGTAGAAATGAATAAATATATATTTAAGTACAGTTTTTCATGAG  
GAAGTTTTAAAAGACCATGTTCCCTAAGCTTCCAAGAAGGTTTTGGATACTAGAAGTATTAATCTATGGCTTTTCT  
CCCAGTAAAACCATAGGCCTGAAGTTCACATTGGGTCTTTAAATCTTTTAGATATATACTGGTCATTTTCAGAAAA  
TTCTTCATAGTGGTATTGGCCTTATATTTAACTTTTTTTTTTATTTTTTTTTTGAGACAAAGCCACACTCTGTCTC  
CTTGTCTGGAGTGTGGTGGCACAGTCTCAGCTCACTGCAACCTCTGCCTCCCAGTTCAAGCAATTCTTCTGCCTC  
AGCCTCCCAAGTAGCTGGGATTACAGGCACCCGCCACCACGCCAGCTAATTTTTGTATTTTGTAGAGATGGGG  
TTTCTCGATGTTGGCCAGGCTGGTCTCAAACCTTCTGACCTCAAGTGATCTGCCACCTTGGCCTCCCAAAGTGCT  
GGGATTACAGGTGTAAGCCACTGCGCCCGGCCTTTTTAACTTTAAACATGTTTTAGAATTCACCTAAAGATCAAA  
ATATCATGGATTGAAC

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**FIGURE 163**

MATNESVSIFSSASLAVEYVDSLLPENPLQEPFKNAWNYMLNNYTKFQIATWGSLIVHEALYFLFCLPGFLFQFI  
PYMKKYKIQKDKPETWENQWKCFKVLLFNHFCIQLPLICGTYFTEYFNIPYDWERMPRWYFLLARCFGCAVIED  
TWHYFLHRLHHKRIYKYIHKVHHEFQAPFGMEAEYAHPLETLILGTGFFIGIVLLCDHVILLWAWVTIRLLETI  
DVHSGYDIPLNPLNLIPFYAGSRHDFHMMNFIGNYASTFTWWDRIFGTDSQYNAYNEKRKKFEKKTE

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**FIGURE 164**

ACGCGGGCACGCACACACGGAAGCACGCCTCCACTTAACTCGCGCCGCCGCGGCAGCTCGAGTCCACCAGCAGCG  
CCGTCCGCTTGACCGAGATGCTGCGGGCCTGTGTCAGTTATCGGGTGTGACCGCCGCCGCCAGAGTTGTCTCTGTG  
GGAAGTTTGTCTCCGTCCATTGCGACCATGCCGCAGATACTCTACTTCAGGCAGCTCTGGGTTGACTACTGGCA  
AAATTGCTGGAGCTGGCCTTTTGTGTTGTTGGTGGAGGTATTGGTGGCACTATCCTATATGCCAAATGGGATTCCC  
ATTTCGGGAAAGTGTAGAGAAAACCATACCTTACTCAGACAAACTCTTCGAGATGGTTCTTGGTCTGCAGCTT  
ATAATGTTCCATTGCCAAAGAAATCGATTTCAGTCGGGTCCACTAAAAATCTCTAGTGTATCAGAAGTAATGAAAG  
AATCTAAACAGTCTGCCTCACAACCTCAAAAAACAAAAGGGAGATACTCCAGCTTCAGCAACAGCACCTACAGAAG  
CGGCTCAAAATTATTTCTGCAGCAGGTGATACCCTGTCCGTCCAGCCCCTGCAGTTCAGCCTGAGGAATCTTTAA  
AAACTGATCACCTGAAATTGGTGAAGGAAAACCCACACCTGCACTTTCAGAAGAAGCATCCTCATCTTCTATAA  
GGGAGCGACCACCTGAAGAAGTTGCAGCTCGCCTTGACAACAGGAAAAACAAGAACAAGTTAAAATTGAGTCTC  
TAGCCAAGAGCTTAGAAGATGCTCTGAGGCAAACCTGCAAGTGTCACTCTGCAGGCTATTGCAGCTCAGAATGCTG  
CGGTCCAGGCTGTCAATGCACACTCCAACATATTGAAAGCCGCCATGGACAATTCTGAGATTGCAGGCGAGAAGA  
AATCTGCTCAGTGGCGCACAGTGGAGGTGCATTGAAGGAACGCAGAAAGGCAGTAGATGAAGCTGCCGATGCCC  
TTCTCAAAGCCAAAGAAGAGTTAGAGAAGATGAAAAGTGTGATTGAAAATGCAAAGAAAAAGAGGTTGCTGGGG  
CCAAGCCTCATATACTGCTGCAGAGGGTAAACTTCACAACATGATAGTTGATCTGGATAATGTGGTCAAAAAGG  
TCCAAGCAGCTCAGTCTGAGGCTAAGGTTGTATCTCAGTATCATGAGCTGGTGGTCCAAGCTCGGGATGACTTTA  
AACGAGAGCTGGACAGTATTACTCCAGAAGTCCTTCTGGATGGAAAGGAATGAGTGTTCAGACTTAGCTGACA  
AGCTCTCTACTGATGATCTGAACTCCCTCATTGCTCATGCACATCGTCGTATTGATCAGCTGAACAGAGAGCTGG  
CAGAACAGAAGGCCACCGAAAAGCAGCACATCACGTTAGCCTTGAGAGAAAACAAAGCTGGAAGAAAAGCGGGCAT  
TTGACTCTGCAGTAGCAAAAGCATTAGAACATCACAGAAGTGAAATACAGGCTGAACAGGACAGAAAGATAGAAG  
AAGTCAGAGATGCCATGGAAAATGAAATGAGAACCAGCTTCGCCGACAGGCAGCTGCCCACACTGATCACTTGC  
GAGATGTCTTAGGGTACAAGAACAGGAATTGAAGTCTGAATTTGAGCAGAACCTGTCTGAGAACTCTCTGAAC  
AAGAATTACAATTTTCGTCGTCTCAGTCAAGAGCAAGTTGACAACCTTTACTCTGGATATAAATACTGCCTATGCCA  
GACTCAGAGGAATCGAACAGGCTGTTTCAGAGCCATGCAGTTGCTGAAGAGGAAGCCAGAAAAGCCCACCAACTCT  
GGCTTTTCAGTGGAGGCATTAAAGTACAGCATGAAGACCTCATCTGCAGAAAACACCTACTATCCCGCTGGGTAGTG  
CAGTTGAGGCCATCAAAGCCAACTGTTCTGATAATGAATTCACCCAAGCTTTAACCGCAGCTATCCCTCCAGAGT  
CCCTGACCCGTGGGGTGTACAGTGAAGAGACCCTTAGAGCCCGTTTTCTATGCTGTTCAAAAACCTGGCCCGAAGGG  
TAGCAATGATTGATGAAACCAGAAATAGCTTGTAACAGTACTTCCTCTCCTACCTACAGTCCCTGCTCCTATTCC  
CACCTCAGCAACTGAAGCCGCCCCAGAGCTCTGCCCTGAGGATATAAACACATTTAAATTACTGTCATATGCTT  
CCTATTGCATTGAGCATGGTGATCTGGAGCTAGCAGCAAAGTTTGTCAATCAGCTGAAGGGGGAATCCAGACGAG  
TGGCACAGGACTGGCTGAAGGAAGCCGAATGACCCTAGAACGAAACAGATAGTGGAATCCTGACAGCATATG  
CCAGCGCCGTAGGAATAGGAACCACTCAGGTGCAGCCAGAGTGAGGTTTAGGAAGATTTTCATAAAGTCATATTT  
CATGTCAAAGGAAATCAGCAGTGATAGATGAAGGGTTTCGACGAGAGTCCCGGACTTGTCTAGAAATGAGCAGG  
TTTACAAGTACTGTTCTAAATGTTAACACCTGTTGCATTTATATTCTTTCCATTTGCTATCATGTCAGTGAACGC  
CAGGAGTGCTTTCTTTGCAACTTGTGTAACATTTCTGTTTTTTCAGGTTTTACTGATGAGGCTTGTGAGGCCAA  
TCAAAATAATGTTTGTGATCTCTACTACTGTTGATTTTGCCCTCGGAGCAAACCTGAATAAAGCAACAAGATG

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**FIGURE 165**

MLRACQLSGVTAAQSCLCGKFVLRPLRPCRRYSTSGSSGLTTGKIAGAGLLFVGGGIGGTILYAKWDSHFRESV  
EKTIPYSDKLFEMVLGPAAYNVPLPKKSIQSGPLKISSVSEVMKESKQSASQLQKQKGDTPASATAPTEAAQIIS  
AAGDTLSVPAPAVQPEESLKTDPHPEIGEGKPTPALSEEASSSSIRERPPEEVAARLAQQEKQEQQVKIESLAKSLE  
DALRQTASVTLQAIAAQNAAVQAVNAHSNILKAAMDNSEIAGEKKSAQWRTVEGALKERRKAVDEAADALLKAKE  
ELEKMKSVIENAKKKEVAGAKPHITAAEGKLHNMIVDLDNVVKKVQAAQSEAKVVSQYHELVVQARDDFKRELD  
ITPEVLPGWKGMVSDLDLADKLSTDDLNSLIAHAHRRIDQLNRELAQKATEKQHITLALQKLEEKRAFDSAVA  
KALEHHRSEIQAEQDRKIEEVRDAMENEMRTQLRRQAAAHTDHLRDVLRVQEQELKSEFEQNLSEKLSEQELQFR  
RLSQEQVDNFTLDINTAYARLRGIEQAVQSHAVAEAEARKAHQLWLSVEALKYSMTSSAETPTIPLGSAVEAIK  
ANCSDNFTQALTAAPPELSTRGVYSEETLRARFYAVQKLARRVAMIDETRNSLYQYFLSYLQSLLLFPFQQLK  
PPPELCPEDINTFKLLSYASYCIEHGDLELAAKFVNQLKGESRRVAQDWLKEARMTLETQIVEILTAYASAVGI  
GTTQVQPE

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FIGURE 166A

GTGGGGTGGGGTGGGGCTGGGGGCTTGTCGCCCTTTTCAGGCTCCACCCTTTGCGGAGATTATAAATAGTCATGAT  
CCCAGCGAGACCCAGAGATGCCTGTAATGGTGAGACTTTGGATCCTTCCTGAGGACGTGGAGAAAACCTTTCTGCT  
GAGAAGGACATTTTGAAGTTTTGTTGGCTGAAAAAGCTGTTTCTGGAATCACCCCTAGATCTTTCTTGAAGACT  
TGAATTAGATTACAGCGATGGGGACACAGAAGGTCACCCACAGCTCTGATATTTGCCATCACAGTTGCTACAATCG  
GCTCTTTCCAATTGGCTACAACACTGGGGTCATCAATGCTCCTGAGAAGATCATAAAGGAATTTATCAATAAAA  
CTTTGACGGACAAGGGAATGCCCCACCCTCTGAGGTGCTGCTCACGTCTCTCTGCTCCTTGTCTGTGGCCATAT  
TTTCCGTCGGGGGTATGATCGGCTCCTTTTCCGTCGGACTCTTCGTCACCGCTTTGGCAGGCGCAATTCATGCT  
TGATTGTCAACCTGTTGGCTGTCACTGGTGGCTGCTTTATGGGACTGTGTAAAGTAGCTAAGTCGGTTGAAATGC  
TGATCCTGGGTCGCTTGGTTATTGGCCTCTTCTGCGGACTCTGCACAGGTTTTGTGCCCATGTACATTGGAGAGA  
TCTCGCCTACTGCCCTGCGGGGTGCCTTTGGCACTCTCAACCAGCTGGGCATCGTTGTTGGAATTCGGTGGCCC  
AGATCTTTGGTCTGGAATTCATCCTTGGGTCTGAAGAGCTATGGCCGCTGCTACTGGGTTTTACCATCCTTCCTG  
CTATCCTACAAAGTGCAGCCCTTCATTTTGCCTGAAAGTCCCAGATTTTGTCTCATTAAACAGAAAAGAAGAGG  
AGAATGCTAAGCAGATCCTCCAGCGGTTGTGGGGCACCCAGGATGTATCCCAAGACATCCAGGAGATGAAAGATG  
AGAGTGCAAGGATGTCACAAGAAAAGCAAGTCACCGTGCTAGAGCTCTTTAGAGTGTCAGCTACCGACAGCCCA  
TCATCATTTCCATTGTGCTCCAGCTCTCTCAGCAGCTCTCTGGGATCAATGCTGTGTTCTATTACTCAACAGGAA  
TCTTCAAGGATGCAGGTGTTCAAGAGCCCATCTATGCCACCATCGGCGCGGGTGTGGTTAATACTATCTTCACTG  
TAGTTTCTCTATTTCTGGTGGAAAGGGCAGGAAGAAGGACTCTGCATATGATAGGCCTTGGAGGGATGGCTTTTT  
GTTCCACGCTCATGACTGTTTCTTTGTTATTAAAGGATAACTATAATGGGATGAGCTTTGTCTGTATTGGGGCTA  
TCTTGGTCTTTGTAGCCTTCTTTGAAATTGGACCAGGCCCATTCCTGGTTTATTGTGGCCGAACCTCTTCAGCC  
AGGGCCCCCGCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACCTGGACCTCCAACCTCCTAGTCGGATTGCTCT  
TCCCCCTCGCTGCTCACTATTTAGGAGCCTACGTTTATTATCTTACCGGCTTCCTCATTACCTTCTTGGCTT  
TTACCTTCTTCAAAGTCCCTGAGACCCGTGGCAGGACTTTTGAGGATATCACACGGGCCCTTTGAAGGGCAGGCAC  
ACGGTGCAGATAGATCTGGAAAGGACGGCGTCATGGAGATGAACAGCATCGAGCCTGCTAAGGAGACCACCACCA  
ATGTCTAAGTCGTGCCTCCTTCCACCTCCCTCCGGCATGGGAAAGCCACCTCTCCCTCAACAAGGGAGAGACCT  
CATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCTCTTCTCATCCCACGCACTCCATGAGCACC  
CCAAGGCTGCGGTTTGTGGATCTTCAATGGCTTTTAAATTTTATTTCTTGGACATCCTCTTCTGCTTAGGAGA  
GACCGAGTGAACCTACCTTCATTTAGGAGGGATTGGCCGCTTGGCACATGACAACTTTGCCAGCTTTTCTCTCC  
TTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCAGTTCCCCAACCTCAGACTTA  
CCAGGAAGCAGATACATATGAGTGTGGAAGCCGGAGGGTGTATGTAAGAGCACCTTCTCACTTCCATACAGC  
TCTACGTGGCAAATTAACCTGAGTTTTATTTATTTTATCCTCTGGTTTAAATTACATAATTTTTTTTTTTTACTT  
TAAGTTTCAGGATACATGTGCCGAATGTGCAGGTTGTGTACATAGGTATATATATGCCATGATGGAATATTTAT  
TTTTTTAAGCGTAATTTTGCCAAATAATAAAAACAGAAGGAATTTAGATTAGAGGGAGGTGTTTAAAGAGAGGT  
TATAGAGTAGAAGATTTGATGCTGGAGAGGTTAAGGTGCAATAAGAATTTAGGGAGAAATGTTGTTTATTATTGG  
AGGGTAAATGATGTGGTGCCTGAGGTCTGTACGTTACCTCTTAACAATTTCTGTCTTCAGATGGAACTCTTTA  
ACTTCTCGTAAAAGTCATATACCTATATAATAAAGCTACTGATTTCTTGGAGCTTTTTTCTTTAAGATAATAGT  
TTACATGTAGTAGTACTTGAAATCTAGGATTATTAATAATATGGGCATTGTAGTTAATGATGGTTGATGGGTTT  
TAATTTTGGATGGAGTCCAGGGAAGAGAAAGTGATTTCTAGAAAGCCTGTTCCCTCACTGGATGAAATAACTCC  
TTCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCCACCTATCTCGTGGGAGAGCCATCCAAATAAGAAACC  
TAAATAAATTGGTTCTTGGTAGAGATTCAATATTTTCCACTTTGTTCTTTAGGAGATTTTAGGTGTTGATTTT  
TGTTGTATTTTAACTCATACCTTTAAAGGAATCCCCAAAGAATGTTTATAGCAAACCTTGAATTTGTAACCTCA  
GCTCTGGGAGAGGATTTTTTCTGAGCGATTATTATCTAAAGTGTGTTGTTGCTTTAGGCTCACGGCACGCTTGC  
GTATGTCTGTTACCATGTCACTGTGGTCTATGCCGAATGCCCTCAGGGGACTTGAATCTTTCCAATAAACCAGG  
TTTAGACAGTATGAGTCAATGTGCAGTGTAGCCACACTTGAGAGGATGAATGTATGTGCACTGTCACTTTGCTC  
TGGGTGGAAGTACGTTATTGTTGACTTATTTTCTCTGTGTTTGTTCCTACAGCCCCCTTTTTCATATGTTGCTCAG  
TCTCCCTTTCCCTTCTTGGTGCTTACACATCTCAGACCCTTTAGCCAAACCCTTGTCAGTGACAGTATTTTGGTT  
CTTAGTTCTCACTGTTCCCTCTGCTCCTGGAGCCTTTGAATAAAAATGCACGTAGCTGAGGCCGGATGCGGTGGC  
TCACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCGGTGAGGGTTTCGAGACCAGTCTGGCCAACATCG  
TGAAACCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCTGTAATCCCAGCTACTTGG



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**FIGURE 166B**

GAAGCTGAGGCGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAGATCGCATCATTGCACTCT  
AGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATCGAGTGTGCTTTAGCTTGA  
AAAGGTGACCTTGCAACTTCATGTCAACTTTCTGGCTCCTCAAACAGTAGGTTGGCAGTAAGGCAGGGTCCCATT  
TCTCACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCTTTGTTTTAAATAAAAA  
TTCTGAATGTACACG

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**FIGURE 167**

MGTQKVTPALIFAITVATIGSFQFGYNTGVINAPEKIIKEFINKTLTDKGNAPPSEVLLTSLWSLSVAIFSVGGM  
IGSFSVGLFVNRFGRNSMLIVNLLAVTGCCFMGLCKVAKSVEMLILGRLVIGLFCGLCTGFVPMYIGEISPTAL  
RGAFGTLNQLGIVVGILVAQIFGLEFILGSEELWPLLLGFTILPAILQSAALPFCPESPRFLLINRKEEENAKQI  
LQRLWGTQDVSQDIQEMKDESARMSQEKQVTVLELFRVSSYRQPIIISIVLQLSQQLSGINAVFYYSTGIFKDAG  
VQEPYATIGAGVVNTIFTVVSFLFLVERAGRRTLHMLGLGGMAFCSLMTVSLLLKDNYNGMSFVCIGAILVFVA  
FFEIGPGPIPWFIVAELFSQGPRPAAMAVAGCSNWTSNFLVGLLFPSAAHYLGAYVFIIFTGFLITFLAFTFFKV  
PETRGRTFEDITRAFEGQAHGADRSGKDGVMMNNSIEPAKETTTNV

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**FIGURE 168A**

ACTCGGCCGGCAGCGGACCGCAGCCACCAGCCGCCCGCGCCCTCCAGCCCCGTCCGGGAGTCCCCGGCCCCGCTGC  
GGTGCCGTGAGTACCTCCAACCCCTGCGCCCCGGAGGAGGCCGAGGGGCTTAGCCACCAGGGCTCGGAAGTGGG  
GGCCGAATCCGGTGCAGACCCAAGGAGAGGGGAGCAGAGCCGGAGTTGGGGAGACTGTGGCTGAAAACCTGTGTC  
TTCCTGGAGACTAGGCTGGCATTCTCTTTGGCAAGAGGTACATCCTGCGGGAGGAGAGCCCTACTGCGTGGTGTG  
CTGCCACCATTGCAACGAATCTCTCTTTGGCAAGAGGTACATCCTGCGGGAGGAGAGCCCTACTGCGTGGTGTG  
CTTTGAGACCTGTTTCGCCAACACCTGCGAGGAGTGTGGGAAGCCCATCGGCTGTGACTGCAAGGTGCAACATTA  
GAGGAAATCAATCAGCACTGGGACTGGCTGGAACAAAATCTCCTCCACACCTTGTCTGTCTTTGATAATAAAGAT  
GACATTGCCAGTTTTGTCAAAGGGAAGGTAAAGCCGTGTGTCTGGGTGGCTGACGGATGACACAGCTGAGCCATT  
CTCCTCATCAGGTGTGACTGTCTGTTGAAGCAGCGCACACTTCTCGGGGGCCTGTGCACCTCAGTCCCTCCTGCTT  
CCTGTCCCTTGACCCCCCTGCCTTCCCATTTGCTGGCTCACTGAGCAGGGACTGTCTCTCTGTGTGTGAGGCTCT  
GATAGCCGAGGAGACCAGCAGCAGGCTCGCCGAGCAGGAGGAGGAACCCGAGAAATCCGAGAAGCCCTGGTGAA  
GTTGAGGCCAGGTTCAACTTCCCCGAGGCGGAGAAGCTGGTCACCTACTACTCCTGCTGCTGTTGGAAGGGCAG  
GGTGCCCCGCCAGGGCTGGCTGTACCTCAGCATCAACCACCTCTGCTTCTACTCCTTCTTCTGGGCAAGGAACT  
TAAACTTGTGGTTCCGTGGGTTGATATCCAGAAATAGAAAGAACGTCCAATGTCTTTCTGACGGATAACCATCCG  
AATCACCACGCAGAATAAGGAGCGTGACTTCTCCATGTTCTGAACTGGATGAGGTGTTTAAAGTCA**ATG**GAGCA  
GCTGGCCGACGTGACGCTGCGAAGGCTGCTGGATAATGAGGTCTTTGACCTCGACCCCGATCTGCAGGAGCCGAG  
CCAGATCACCAAGAGGGACCTGGAAGCCAGAGCACAGAATGAGTTCTTCCGGGCTTTCTTCAGGTTGCCGAGGAA  
GGAGAAGCTGCACGCGGTTGTGGACTGTTGCTCTGGACGCCGTTGAGTCGCTGTACACCGCGGGGCGGATGTT  
CGCCTCTGACAGCTACATCTGCTTTGCCAGCAGAGAAGATGGCTGCTGTAAGATCATCCTGCCACTCAGAGAGGT  
GGTGAGCATCGAGAAGATGGAGGACACGAGCCTGCTGCCGCATCCCATCATTGTGAGTATCAGAAGCAAGGTGGC  
CTTCCAGTTTATTGAGTCCGGGACCGAGACAGCCTGGTGGAGGCGCTGCTTGCGAGGTTGAAGCAGGTCCACGC  
CAACCACCCGTGCACTACGACACCTCTGCGGATGATGACATGGCTTCACTCGTGTTCATTCAACAAGCATGTG  
CAGTGACCACAGATTTGGGGATCTTGAAATGATGTCTTCTCAAAATAGCGAGGAGAGTGAGAAAGAGAAGAGCCC  
GCTGATGCACCCCGATGCCCTGGTCACCGCCTTCCAGCAGTCAGGCAGCCAGAGCCCTGACTCCCGAATGTCCAG  
AGAACAGATAAAAAATAAGCCTGTGGAATGACCACTTTGTGGAATACGGCAGAACCCTGTGTATGTTTCGCACAGA  
GAAGATTCGGAAGCTCGTAGCCATGGGCATCCCTGAATCTTTGCGAGGGAGACTCTGGCTTCTCTTCTCAGATGC  
GGTGACGGATCTTGCTCACACCCCTGGTTACTACGGGAATCTGGTGGAGGAGTCCCTGGGGAAATGCTGCCTGGT  
AACCGAGGAGATAGAACGAGACCTGCACCGCTCCCTGCCAGAGCACCCCGCCTTCCAGAACGAAACGGGAATTGC  
TGCTTTGAGGAGAGTCTTGACGGCCTATGCCACCGGAACCCCAAGATTGGATACTGCCAGTCCATGAACATCCT  
GACCTCCGTGCTGCTGCTGTACACCAAGGAGGAGGAAGCCTTCTGGCTGTTGGTTGCTGTGTGTGAGCGGATGCT  
GCCCGATTACTTCAACCACCGAGTGATCGGGGCACAAGTTGACCAGTCTGTCTTCGAGGAGCTCATCAAGGGTCA  
TCTCCAGAGCTGGCAGAGCACATGAACGACCTCTCAGCCCTGGCGTCTGTCTCTCTCTCGTGGTTCCCTGACCCCT  
GTTCTCTCAGCATCATGCCCTCTAGAGAGTGCGGTGAATGTGGTAGACTGCTTCTTCTATGATGGCATCAAAGCCAT  
CTTCCAGCTGGGACTGGCTGTGCTTGAGGCCAATGCTGAGGACCTGTGCAGCAGCAAGGATGATGGCCAGGCCTT  
GATGATCCTCAGCAGGTTTCTAGATCACATTAAGAATGAGGACAGCCCAGGGCCCCCAGTTGGCAGCCACCATGC  
CTTTTTCTCCGACGACAGGAGCCCTACCCTGTGACTGATATTTTCGGACCTGATCCGGGATTCCCTATGAGAAATT  
TGGAGACCAGTCTGTGGAGCAGATCGAGCACCTACGTTACAAGCACAGGATCAGGGTCCCTCCAAGGCCACGAGGA  
CACCACAAAGCAGAACGTGCTTCGAGTCGTTATCCCGGAAGTCTCAATTCTTCTGAAACCTAGAGGAGCTCTA  
CGACTTATTCAAGAGAGAACATATGATGAGCTGTTACTGGGAGCAGCCAGGCCCATGGCCTCACGCCACGACCC  
CAGCCGGCCCTATGCTGAGCAGTACCGCATAGACGCCCGGCAGTTTGCACACCTGTTTCAGCTAGTCTCGCCCTG  
GACCTGCGGGGGCCACACGGAGATCCTCGCCGAAAGGACGTTTCAAGGCTCTTGATGACAACATGGACCAGCTCAT  
CGAGTTCAAAGCGTTTGTGAGCTGCCTCGATATTAATGTATAATGGAGAAATGAATGAGAAGATTAACTATTATA  
CAGGCTTCATATCCCTCCAGCACTCACTGAAAATGACCGAGACAGCCAGTCGCCGTTGAGGAATCCTCTGTTGTG  
AACATCGAGACCCCTGGTTTTTCGGGAAACCCAAATGGTGATGCAGTTGATTATCAGAAACAGCTGAAGCAGATGAT  
TAAGGATTTAGCCAAAGAAAAAGATAAAACTGAGAAAGAATTGCCCAAAATGAGCCAGAGAGAATTTATCCAGTT  
CTGTAAACTCTGTACAGTATGTTCCATGAAGATCCAGAAGAAAATGATTTGTATCAAGCCATCGCCACAGTCAC  
CACACTGCTGCTGCAGATCGGGGAGGTGGGGCAGCGAGGCAGCAGCTCTGGAAGCTGCTCCAGGAGTGTGGGGA  
GGAGCTGCGGGCTTCACTCCTTCTCTGAGGACTCGGTTTTTGCAGACACTGGGAAGACGCCCCAGGACTCCCA

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**FIGURE 168B**

GGCACTTCCAGAGGCGGCAGAAAGGGACTGGACTGTCTCCCTTGAACATATTTTAGCTTCACTTCTGACTGAACA  
GTCATTAGTCAACTTTTTTGAAAAGCCACTGGACATGAAATCCAACTTGAAAATGCCAAGATCAATCAGTACAA  
TCTCAAACTTTTGAAATGAGCCACCAATCACAATCTGAACTTAAGCTGAGTAACTTGTAGCAAGACAGCAGCTG  
CTATGCACACTGGAGTCCACCATACCAAAGCACGAACCAGACTGTTTCTTGGGGTCAGCCCTAAACCGAGATTTC  
AGTCTACCTTACCAATGGGGCATCTGGCTAAACAACCTGACAACTGTGGCCAGGGGAACCGACACAACCCTCAA  
GCATTTCTATGTATTGAGAATTGTCAGTGCCCTAAGGTATCCATTGGTTCCCTTGATGCCAACTTACAATTTTTA  
CCGGATTTGCTGAAATGGGCACTTCTGCTGTGATGCTAGTGTTGATTTTGCTCTCAGATGAACACAATGTCTCAT  
ACTAACCAAGAAGCAAGAAAAGCCCCATGCTTTTCATTTTTTCACTTGGAGTGACAATGGGAGAGGTCAGGAATCAA  
GTTCACTTTCAAGATCTAAGGGAGTCCACTATCTGTGCAATTGTATTTGGCTTTTTTTTGCAGTGTTCATGCT  
GGTAATTGAAACCATTTTAATATATTTGGTTGTATTCACTTTATATGTCCTTCCAAAAATGTTGTTGTGTACATA  
CCATGCTTTCAATGTTGGCTTCCAAGTTTTTTAATAAGAACTTTTTGTTTTTT

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**FIGURE 169**

MEQLADVTLRRLLDNEVFDLDPDLQEPSQITKRDLEARAQNEFFRAFFRLPRKEKLHAVVDCSLWTFPSRCHTAG  
RMFASDSYICFASREDGCCCKIILPLREVVSIEKMEDTSLPHPIIVSIRSKVAFQFIELRDRDSLVEALLARLKQ  
VHANHPVHYDTSADDDMASLVFHSTSMCSDHRFGDLEMMSSQNSEESEKEKSPLMHPDALVTAFQQSGSQSPDSR  
MSREQIKISLWNDHFVEYGRIVCMFRTEKIRKLVAMGIPESLRGRLWLLFSDAVTDLASHPGYYGNLVEESLGKC  
CLVTEEIERDLHRSLPEHPAFQNETGIAALRRVLTAYAHRNPKIGYCQSMNILTSVLLLYTKEEEAFWLLVAVCE  
RMLPDYFNHRVIGAQVDQSVFEELIKGHLPELAEHMNDLSALASVSLSWFTLFLSIMPLESAVNVDCCFFYDGI  
KAIFQLGLAVLEANAEDLCSSKDDGQALMILSRFLDHKINEDSPGPPVGSHHAFFSDDQEPYPVTDISDLIRDSY  
EKFGDQSVEQIEHLRYKHRIRVLQGHEDTTKQNVLRVVIPEVSILPEDLEELYDLFKREHMMSCYWEQPRPMASR  
HDPSRPYAEQYRIDARQFAHLFQLVSPWTCGAHTEILAERTFRLLDDNMDQLIEFKAFVSCLDIMYNGEMNEKIK  
LLYRLHIPALTENDRDSQSPLRNPLLSTSRPLVFGKPNGDAVDYQKQLKQMIKDLAKEKDKTEKELPKMSQREF  
IQFCKTLYSMFHEDPEENDLYQAIATVTLLLLQIGEVGQRGSSSGSCSQECGEELRASAPSPEDSVFADTGKTPQ  
DSQALPEAAERDWTVSLEHILASLLTEQSLVNFFEKPLDMKSKLENAKINQYNLKTFFEMSHQSQSELKLSNL

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**FIGURE 170**

CGGCTGCTGCTGCCACTGCTGTGCTGGGGGCCCGGTCGCCAGGCCAAAAAGCCCTCCACGTTTGAGGGGAGTCATG

AGCCGTTTCCTGAATGTGTTAAGAAGTTGGCTGGT TATGGTGTCCATCATAGCCATGGGGAACACGCTGCAGAGC  
TTCCGAGACCACACTTTTCTCTATGAAAAGCTCTACACTGGCAAGCCAAACCTTGTGAATGGCCTCCAAGCTCGG  
ACCTTTGGGATCTGGACGCTGCTCTCATCAGTGATTTCGCTGCCTCTGTGCCATTGACATTACACAACAGACGCTC  
TATCACATCACACTCTGGACCTTCCTCCTTGCCCTGGGGCATTTCCTCTCTGAGTTGTTTGTCTATGGAAC TGCA  
GCTCCACGATTGGCGTCTTGCCACCCCTGATGGTGGCAAGTTTCTCCATCCTGGGTATGCTGGTTCGGGCTCCGG  
TATCTAGAAGTAGAACCAGTATCCAGACAGAAGAAGAGAACTTGAGGCCCAGCATTATCACCTCCAGGACTTTCCTC  
GTTTTCCACCTTGGCCATCTTCTTCCTTCGTCGCTCTCTCCTCTTTAATTTCTTTTCTATTCCATCATCTGCCCTT  
TTATTCACTTTTAGCCTCTTTTTTTTAAATTTTAAATTTTAAAGATATGCATACTGAAAAGTATATAACATGTACG  
TACAATTTAAAGAATAATTTTAAAGTGAATACTACGTAACCTCCATCCAAGTCAAGAAATTGCCAGCTTCTCGGAA  
GCCCACTGTGCTCTCCTTCCCTACCTGCAACCTCTTCCAGGCTCCCTTTTCCAGCCTTCCCTTTTTTCCCTTTTA  
TTTTTCATGCCTTGATTGACTTGTGTGGTGGGAACATGTGAACATATGAACTTAAACCTGCTGCCACCCAGAGC  
AGCTGTGACCAAGGGCTGCCTCAAGGGGTTGTCCACGCAGGTTGGGCTCCTCTCTGCTGCTGGACCCAAGACTCT  
GAACCTTCCAAGGGACAGGCAGTTCTTCTAAGAAGGGCTCCCTGTGTGTGAGCAAGACCACAGCTCTCCTTCTA  
TCTACAGATGCATGAGGGTTGGAAGAGTCTGGGCTGTTTTAGACCTTCTGGTCAGCTGTATTTGTGTAACAACT  
TTTGTAATAAATAGAAAAACCTCTGCTCTGATCAGTTCTTGTACTTTGACCTCTGCTAAGACAAGAGCATGGCT  
GCCTCCTCTGAGCCCTAGGAGAATCACAGCTTTATGCCTGATTGAATACACCATAGTGAGTAGGACAGCTCATGA  
CACAGGTCAGCCTGGCTGCCTCCGGCTCCTTACTGTCAATTTGCTCATTCTCTTGTATTCTTGAAGTCAAATCTT  
CTTTTTTCTCACCTTCAAGAGTCTGCGTTCACAAC TAAACACTAAGTGCCCTTTCTTATTTCCCTCCTAAAGAAGA  
AACAGATTCTTGAGAGAGCAGAGACAAAAAATAGA ACTAGGCAGCATAGATGAAACAAC TG CATGACATGGGAA  
GAAGACAAC TAAACCCCGAGGAGAATGCACTGGAATGGACAGTTGCTCTTAAACCTACCCAGAGGGCCTCCCCC  
AGCTGGACCCCTCATACACAGTGTGTGTATCCAAAAGGCCATTGCTATTTT CAGCAAATATTTGTTGAGTACTTCTC  
CATGCCGGACACTTGGGAAAGAGAAATGAACGACACAGGCAATGCCCTGCCCTGTGGGCCTTATATTATAGTCA  
AGGTAACAGAATCAACAAGCCAACACAAAAATAAAGAACTTCAAATAGGGATAAGAACTCTAACAAACACAAGGT  
ATTTTGGTCAAGAAGGAATGTGGGGTGGGCAGTGGGGAACGTAAC TTAATTAGATCATCAGAAAGTCTCCCTG  
AGGAGATGGATTTTTTTTTTTGTTTTTTTAGAGACGGGGTTTCACTCTGTCAACCAGGCTGGGAATTGCAGTGGCAC  
AATCCCTCACTGCTGCCTCAACTTCCTGGGCTCAAGTGACCCTCCTGCATCAGCTTCCCAAGTAGCTGGGACTGC  
AAGTGTGTACCACCACATCCAGCTAACATTTTTGGGGGTGGGAAGAGATGGGGTCTTACTATGTTGTCCAGGCTA  
AGAGGTGGGATTTGAGCTGAGACTTGAATGCCCAGGAGTTAAATGTCTTAAGATATGGAGCAGGCCGTTAGAAAG  
GAGGGAGCAGCAACTGGAAGGTAGAATAGTCTTATTC AAGGAATAAGAACTATGTAATCACAGCATGGTGAAGAG  
TTAGGAAGTGAAAAA

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**FIGURE 171**

MSRFLNVLRSWLVMVSI IAMGNTLQSFRDHTFLYEKLYTGKPNLVNGLQARTFGIWTLLSSVIRCLCAIDIHNKT  
LYHITLWTFLLALGHFLSELFVYGTAAPTIGVLAPLMVASFSILGMLVGLRYLEVEPVSRQKKRN

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**FIGURE 172**

GAGGAGTGGATTACATATTCCAACAGTTGTTATTACATTGGTAAGGAAAGAAGAACTTGGGAAGAAAGAGTTTGC  
TGGCCTGTGCTTCGAAGAACTCTGATCTGCTTTCTATAGATAATGAGGAAGAAATGGTATGTGTGGGGACTTCCC  
AGTTGGCTGTAAGTTGCCATTTGAACATAACGAAATAGATCAGGAAGTGGAGACATATCTAAATTTTCTAGTTTT  
ATAGAAGGCTTTTATCCACAAGAATCAAGATCTTCCCTCTCTGAGCAGGAATCCTTTGTGCATTGAAGACTTTAG  
ATTCTCTCTGCGGTAGACGTGCACATTATAAGTATTTGATCGGGTGGATTCTGTGGTGGGAGGTCTCGACACAGCT  
GGGAGATGAGTGAATTTTATAATTATAAATTGGATCTGAAGAAGAGTGATTTTTCAACACGATGGCAAAGCAAA  
GATGTCCAGTAGTCAAAAGCAAATGTAGAGAAAATGCATCTCCATTTTTTTTTCTGCTGCTTCATCGCTGTAGCCA  
TGGGAATCCGTTTCATTATTATGGTAGCAATATGGAGTGCTGTATTCTTAACTCATTATTCAACCAAGAAGTTC  
AAATTCCTTGACCGAAAGTTACTGTGGCCCATGTCTAAAACTGGATATGTTACAAAAATAACTGCTACCAAT  
TTTTTGATGAGAGTAAAACTGGTATGAGAGCCAGGCTTCTTGTATGTCTCAAAATGCCAGCCTTCTGAAAGTAT  
ACAGCAAAGAGGACCAGGATTTACTTAACTGGTGAAGTCATATCATTGGATGGGACTAGTACACATTCCAACAA  
ATGGATCTTGGCAGTGGGAAGATGGCTCCATTCTCTACCCAACTACTAACAATAATTGAAATGCAGAAGGGAG  
ACTGTGCACTCTATGCCTCGAGCTTTAAAGGCTATATAGAAAAGTGTCAACTCCAAATACATACATCTGCATGC  
AAAGGACTGTGTAAAGATGATCAACCATCTCAATAAAAGCCAGGAACAGAGAAGAGATTACACCAGCGGTAACAC  
TGCCAACCGAGACTAAAGGAAACAAACAAAAACAGGACAAAATGACCAAAGACTGTCAGATTTCTTAGACTCCAC  
AGGACCAAACCATAGAACAAATTTCACTGCAACATGCATGATTCTCCAAGACAAAAGAAGAGAGATCCTAAAGGC  
AATTCAGATATCCCCAAGGCTGCCTCTCCACCACAAGCCAGAGTGATGGGCTGGGGGAGGGGTGCTGTTTTA  
ATTTCTAAAGGTAGGACCAACACCCAGGGGATCAGTGAAGGAAGAGAAGGCCAGCAGATCAGTGAGAGTGCAACC  
CCACCCTCCACAGGAAATTGCCTCATGGGCAGGGCCACAGCAGAGAGACACAGCATGGGCAGTGCCTTCCCTGCC  
TGTGGGGGTCATGCTGCCACTTTTAATGGGTCCTCCACCCAAAGGGTTCAGGGAGGTGGTGCTGCCCCAGTGGGC  
CATGATTATCTTAAAGGCATTATTCTCCAGCCTTAAGATCTTAGGACGTTTCCTTTGCTATGATTTGTACTTGCT  
TGAGTCCCATGACTGTTTCTCTTCTCTCTTCTTCTTCTTGGGAATAGTAATATCCATCCTATGTTTGTCCCACT  
ATTGTATTTTGAAGCACATAACTTGTTTGGTTTTCACAGGTTACAGTTAAGAAGGAATTTTGCCTCTGAATAAA  
TAGAATCTTGAGTCTCATGCAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 173**

MGWIRGRSRHSWEMSEFHNYNLDLKKSDFSTRWQKQRCPVVKSCKRENASPPFFCCFIAMGIRFIIMVAIWS  
AVFLNSLFNQEVQIPLTESYCGPCPKNWICYKNNCYQFFDESKNWYESQASCMSQNASLLKVYSKEDQDLLKLVK  
SYHWMGLVHIPTNGSWQWEDGSILSPNLLTIEMQKGDALYASSFKGYIENCSTPNTYICMQRV

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**FIGURE 174A**

GGGCCGGGGTGCGGAGGGAGTCCCTGAAACTTCTCCCAACAGCCCCAGGGCCAATCTTCCCTCAGCCCACTCCCC  
TCTTCGCCAGCTCCCAGGTCCCCACTCCTGTACCGGGGGTGGGGTGGGGAGCCAGGCCCGTCTCCCGCTGGGACA  
CACACAGGGGCGGGGAGCGGGGACGGGACCCCCGAGGCGGGGGGACGAACCGACAGACAGCGCTGGGCGCC  
CGCCCCAGCGGGCAGGCAGGCAGGAGGAGGCGGAGGCGGGGTACGACGGGGAGCACTGGGTCTGGGGAGTTTCC  
TCTCAACTATCGGGGAGAACTCCCCGAGCCGGAGGAAAGACCCAGACAGTGTCTTCTCCCGGGGCGGTGC  
TCCCCCGCCCCGCTAGCGGCGGTGCGCGCCACCGGCGCCTCCACCTCTACCATCTCCTCTTTCTCCACCACCTC  
GGGCCCCGGTGTCCCCGGCCAGCACTATGCCCATCTTACTGTTTCTGATAGACACGTCTGCCCTCTATGAACCAGC  
GCAGCCATCTGGGCACCACCTACCTGGACACGGCCAAAGGCGCGGTAGAGACCTTCATGAAGCTCCGTGCCCGGG  
ACCCTGCCAGCAGAGGAGACAGGTATATGCTGGTCACTTTTGAAGAGCCGCCCTATGCTATCAAGGCTGGATGGA  
AAGAAAACCATGCAACGTTTATGAATGAATTGAAAAACCTTCAGGCTGAAGGACTTACGACTCTTGGCCAATCCC  
TAAGGACAGCTTTTGATTTATTAAATTTAAATAGATTAGTAAGTGGCATAGACAACTATGGGCAGGGAAGAAACC  
CTTTTTTCTTGGAGCCAGCAATAATTATCACAATTACTGATGGGAGCAAGTTGACTACCACCAGTGGAGTCCAGG  
ATGAGCTTCATTTACCTCTTAATTTCTCCTTTGCTGGAAGTGAATTGACCAAGGAACCTTTTCGTTGGGATCAGA  
GACTCTTTGCATTAGTGTGCGGTTGCCTGGCACCATGTCAGTAGAATCAGAACAGTTGACAGGTGTGCCTTTAG  
ATGACTCTGCAATCACACCAATGTGTGAAGTGACAGGCGGCCGTTTCATATTCTGTGTGTTCTCCAAGAATGCTTA  
ATCAGTGTCTGGAGTCTTTGGTGCAGAAAGTACAAAGTGGGTGGTAATAAACTTTGAAAAAGCAGGACCAGATC  
CTTCCCCTGTAGAAGATGGGCAGCCAGATATATCAAGGCCTTTTGGATCTCAGCCTTGGCATAGCTGTCACAAAC  
TCATATATGTCAGACCAAATCCTAAACTGGGGTTCCTATAGGTCATTGGCCTGTTCCAGAGTCTTTTTGGCCAG  
ATCAAAATTCGCCAACACTACCACCTCGTACATCTCATCTGTAGTGAAGTTTTCTGTACAGACTGTGAACCAA  
TGGTTATTGATAAACTTCCTTTTGACAAATATGAGTTGGAACCTTCACCACTGACTCAATTTATCCTGGAAGGA  
AATCTCCTCAAACATGTTGGCAGGTGTACGTGAGCAATAGTGCAAAATACAGTGAACCTTGGTCATCCTTTTGGTT  
ACTTGAAAGCCAGTACAGCACTGAACTGTGTCACTTATTTGTGATGCCTTACAATTATCCAGTCTTCTTCCCC  
TCTTAGATGACTTGTTTAAAGTGCATAAAGCAAAACCAACATTGAAGTGGAGACAGTCATTTGAAAGTTATTGA  
AGACAATGCCTCCCTACTATCTTGGGCCCTTGAAGAAAGCTGTTAGGATGATGGGAGCACCTAACCTAATAGCAG  
ACAGTATGGAATATGGACTTAGTTACAGTGTCACTTTCATACCTCAAAAACTGAGTCAACAGGCCAAAAATAGAAT  
CTGATCGAGTCATTGGATCTGTAGGCAAAAAAGTAGTACAGGAGACTGGAATAAAAGTCCGGAGCCGATCACATG  
GTTTATCAATGGCATATAGGAAAGATTTTCAACAACTCCTCCAGGGAATTTTCAAGGATGTCCCTCACAGACTGC  
TAGACCTTAATATGAAGGAATACACTGGGTTCCTAAGTTGCTTTGCTGAATAAGGATTTGAAGCCACAGACATTTA  
GAAATGCTTATGACATACCAAGACGAAATCTTTTGGATCACTTAACAAGAATGAGATCTAATCTTTTGAAGAGCA  
CTCGCAGATTTCTGAAAGGACAGGACGAAGATCAAGTGACAGTGTTCCTATAGCACAAATGGGGAACCTACCAGG  
AATACCTCAAGCAAGTACCTTCTCCACTAAGAGAACTTGATCCTGATCAGCCACGAAGGTTGCATACATTTGGCA  
ACCCCTTTAAGCTGGATAAGAAGGGTATGATGATAGATGAAGCAGATGAATTTGTGGCTGGACCTCAAAATAAAC  
ATAAACGACCCGGAGAACCAATATGCAAGGGATCCCTAAAAGACGTGGTGTATGTCTCCACTACTAAGAGGCA  
GACAGCAGAATCCTGTTGTAAACAATCATATTGGGGGAAAAGGACCACCTGCACCTACAACCTCAAGCACAGCCAG  
ATCTTATTAAACCTCTTCTCTTCAATAAATTCAGAAACCACTAATGATTGATAATACATGATGTGGTTGAAA  
ATCATGTTGCAGACCAACTTTTCATCAGACATTACACCAAATGCTATGGATACGGAATTTTCAGCATCTTCTCCAG  
CCAGTTTACTGGAACGGCCAACCAATCATATGGAGGCTCTTGGTCATGACCATTTAGGAACCAATGACCTCACTG  
TTGGTGGATTTTTAGAAAATCATGAGGAGCCAAGAGATAAAGAACAATGTGCTGAAGAGAACATACCAGCATCTT  
CACTCAACAAAGGAAAGAAATTTGATGCATTGCAGAAGCCATGAAGAGGTCAATACTGAACTAAAAGCACAAATAA  
TGAAAGAGATCCGAAAGCCAGGAAGAAAATATGAAAGAATCTTCACTTTACTGAAGCATGTGCAAGGCAGTTTAC  
AAACAAGACTAATATTTTACAAAATGTCAATAAAGAGCATCAAGGTTTAAAAACGAATGCTAATAGAACAAAC  
TGGAGAATCTTGGATGAAATTCATCGAAGAGCCAATCAGATCAACCATATTAATAGCAATTAAGAAAATAG  
AATGTGGCCACTTATTTCACTATCTTCTTCAAAATACAAAGTAAATAACAAGACTGTTGTGATCTTGCAATTCATTT  
TCTGACATGCATTGTTGGCTATTTGAAATACTAAAAGCAAACTACAGATCCTTTTTCCATCATTTTACAGTGAC  
CTTTTCTTCAATTTTGGTTTATTTTGTAAATGTGAAAAGTATCACTCTAAAAACATTTTTTAATTTAACAACCTAA  
AAATATTCTCCAAATCTCTTGCTTGTCAATTGACTCTTGGGTGTCATTTCCCTCAGGTTCTATTTTCTTAAACC  
AACCTTTAAATTTGTCACCTCTGTTAAGGTTGAACTTTGCCAAAAAAGAAAGTTACTTTGTAATTTTGGGG  
AAAAAGCACATACATTAACCTAGGTAATGTTTTGTATATACAGTTATTTTGGATATATTATTGTAAGTTGTAC

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**FIGURE 174B**

AAATGTATTTTGAAGAATATTTAAGAAAAGCACTTTTGTTATTCCATCAATAAATGCTCTATTTTAAAAAAAAA  
AAAAAAAAAAAAAAAAA

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**FIGURE 175**

MPILLFLIDTSASMNQRSHLGTITYLDTAKGAVETFMKLRARDPASRGDRYMLVTFEPPPYAIKAGWKENHATFMN  
ELKNLQAEGLTTLGQSLRTAFDLLNLNRLVTGIDNYQGRNPFFLEPAIIITITDGSKLTTTSGVQDELHLPLNS  
PLPGSELTKEPFRWDQRLFALVLRPLPGTMSVESEQLTGVPDDSAITPMCEVTGGRSYSVCSRMLNQCLESVQ  
KVQSGVVINFEKAGPDPSFVEDGQPDISRPFQSQPWHSCHKLIYVRPNPKTGVPIGHWPVPESFWPDQNSPTLPP  
RTSHPVVKFSCTDCEPMVIDKLFPDKYELEPSPLTQFILERKSPQTCWQVYVSNSAKYSELGHPFGYLKASTALN  
CVNLFVMPYNYPVLLPLDDLFKVHKAKPTLKWRQSFESYLKTMPPYYLGPLKKAVRMMGAPNLIADSMEYGLSY  
SVISYLKKLSQQAKIESDRVIGSVGKKVVQETGIKVRSRSHGLSMAYRKDFQQLLQGISDVPHRLDLNMKEYT  
GFQVALLNKDLKPQTFRNAYDIPRRNLLDHLTRMRSNLLKSTRRFLKQDEQVHSVPIAQMGNQYQYELKQVPSP  
LRELDPDQPRRLHTFGNPFKLDKKGMMIDEADEFVAGPQNKHKRPGEPMQGIKRRRCMSPLLGRQQNPVVNN  
HIGGKGPPAPTQAQPDLIKPLPLHKISETTNDISI IHDVVENHVADQLSSDITPNAMDTEFSASSPASLLERPTN  
HMEALGHDHLGTNDLTVGGFLENHEEPRDKEQCAEENIPASSLNKGKKLMHCRSHEEVNTELKAQIMKEIRKPGR  
KYERIFTLLKHVQGSQTRLIFLQNVIKEASRFKKRMLIEQLENFLDEIHRRANQINHINSN

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**FIGURE 176**

CCAAGCCCATGAGGGCCGCGCGCCCGGCCGCGGTGCTGACGAGACGGAGCTCCTGGCCCCCGAGGAGGAGCAGA  
GGATCAATGCGGTTCAAGAATCGATTCCAGCGGTTTCATGAACCATCGAGCTCCAGCCAATGGCCGCTACAAGCCA  
ACTTGCTATGAACATGCTGCTAACTGTTACACACACGCATTTCCTCATTGTTCCGGCCATCGTGGGCAGTGCCCTC  
CTCCATCGGCTGTCTGATGACTGCTGGGAAAAGATAACAGCATGGATTATGGAATGGGACTCTGTGCCCTCTTC  
ATCGCTTCTACAGTATTTACATTGTATCATGGAAAAAGAGCCACTTAAGGACAGCGGAGCATTGTTTTACATG  
TGTGATAGAATGGTTATCTATTTCTTCATTGCTGCTTCTTATGCTCCATGGTTAAATCTTCGTGAAC TTGGACCC  
CTGGCATCTCATATGCGTTGGTTTATCTGGCTCATGGCAGCTGGAGGAACCATTTATGTATTTCTCTACCATGAA  
AAATATAAGGTGGTTGAACTCTTTTCTATCTCACAATGGGATTCTCTCCAGCCTTGGTGGTGACATCAATGAAC  
AACACCGATGGACTTCAGGAAC TTGCCTGTGGGGGCTTAATTTATTGCTTGGGAGTTGTGTTCTTCAAGAGTGAT  
GGCATCATTCCATTTGCCACGCCATCTGGCACCTGTTTGTGGCCACGGCAGCTGCAGTGCATTACTACGCCATT  
TGGAAATACCTTTACCGAAGTCCTACGGACTTTATGCGGCATTTATGACCAATCTGTACTAATTCTCCAAACCAG  
TATTATTTCAATTATGGCACTTGGGAGTGGGGTGAGAGCTAAACATTGCACAGGGCAAAGAAAAAAATAACTGC  
ACTGACTTTATATCTTTTGAATATAATTACTGTGAAAGTATAAAGGCTGTGTTCTGGAATTTTCTGCCTCACAGC  
AAATAAATAAGGTAGTGAATTAATTATTCATTCCATTCCACTATCATGAAGGACTCTGAATAGACTTGGCCAACT  
GATGTTTACAAACCAGACTTTTATATTTTAAATTTTACAGATTTTACTACATGATTTTCTAAATTACTATGTCAG  
GTTGTAAAAGTCAGTGCAATAACAAACCTTCCTTTTAAAGAAGAAAATTGTTTCTATTACTTTCCCATTCACTAG  
GTAAAGAATCATGGACAGAACTTACACTACTTTTTACCATGTTTCATCTTGGCATAACATGGTTCTTTTTTAAAT  
AGAACTTTTAGTTTTTGTAAATTTTTAAAAAATATTTTATTGATATGCATCTCTGCAGGTCCTCATTTCATGTT  
GTAAATTTTTGGAGCAAGCAGTCAACATTCCACAAACGAACAAACATTATACCTCTCTGATAGTTTTATTAAGC  
ATGGAGAAATTGCCAATTTTTAAAAACTGCAGTTTCCAAACTTTTCTGCCAACCTCTTACTCTGAATTCAGTGC  
TGCTTTGGGACATATACTTGACCTAGCTTGGTTTACCAGTGATGGAAAAGTATTTGATATCATTAACCTTTTTCA  
AAAGATCCAACTTTTTCTCTATGCCTTTGCCACAT TCTCTTCAGGGTCTCTTTCCACAGCGGATAAATGTTTTTT  
CTGTATTATGACAGTATTGTTGTGATGGCCATCTGCTGGAACTCCTGAAGAGCATTATGTATTACAGTGAGCAG  
TTGTATTGCCTGTTTGGTGCCCAATGGTTAAGTCAATGTCACTTAGCTTTATATTGTCAGTTTGATATTTATTTT  
AAATTGTGGAAGTAGATGCATAAATTCACATTTCTGCCTTTTCTTTGTCATCTTCTCATATATTGTGTTTTTTTTT  
TTTTTCTAGAAAAAATATTTAAAGCATTGTTTGACAGGTAGAACTCATGTATCTGTAGTCCATGAGTTATATC  
CTGGCTCAGTGGAGTGATATTTATGTATTATTTTACTTTTCTCTCAGTGTCTTATATTAAGATTAAACATGTTGT  
TAATAGTTGCTTTGTTGATTAATCTCTCTTGTGTTGTTTAAATAAATGAAATAGGCTTGCCTTTAGATCGGGTG  
CTGATATTGCCTGTTTCCTAGTAATGGGCTGATCAAATGATCAGTGGAAATCTTGGTTTGATGATAACCTTATTA  
ATTGAAATTTTTTACTGATGTGGCTTTAAAAGAGGTTTATTTTGTATATGTTTAGAACTCTCTGATTTTGATGAA  
TTATATGGGAGTGAGAAACAGAAGAAGTGGTATTTGCTGGCGAGTTAAATAGGCAAGGTACCCAGTGATAACACC  
AACCAAACCACTCCTATCTGCATGATTCTGAACATCTGGATGCCTGTTGTTTTACTGTGTATATTTTATTTTAA  
TATATTAAC TTTGTGGATTCA TTTAAGGTCTACTCAAAGTAACACTGTCCAAACCACTAATATGTATGTAAAAA  
TTGTGCTGTATACTACAATAAAGTTGTTACTTGGATTTGTTCCAAAAA AAAAAAAAAA

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**FIGURE 177**

MRFKNRFQRFMNHRA PANGRYKPTCYEHAANCYTHAFLIVPAIVGSALLHRLSDDCWEKITAWIYGMGLCALFIA  
STVFHIVSWKKSHLRTAEHCFHMCDRMVIYFFIAASYAPWLNLRGLASHMRWFIWLMAAGGTIYVFLYHEKY  
KVVELFFYLTMGFSPALVVTSMNNTDGLQELACGGLIYCLGVVFFKSDGIIPFAHAIWHLFVATAAAVHYIAWK  
YLYRSPTDFMRHL

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**FIGURE 178A**

CGCCCCGCGCCCCGGGAGCCTACCCAGCACGCGCTCCGCGCCCACTGGTTCCCTCCAGCCGCCGCGCTCCAGCC  
GAGTCCCCACTCCGGAGTCGCCGCTGCCGCGGGGACATGGTCTCTGCGTTTCAGGGGTAAGCGCGGCTCTCTGCC  
CCCTTCCCGGCCACCACGAGGGGGCGCACGGGAGAACAGGGGCTTCGTGCTAGCTGCCGGGCATTGGGAGGGCTTG  
ACGGGCCAGAGGTGACTGAGCGCAGACGGACCTCAGGAGCAAGGCTCTGTGTGGGGCTGTGACACTCCCCTCCC  
CGCCCCACACACTTACCTCAATTCCCCTGTGGATTGGGAAACCGGGGGCTGGCCGGCTAAAGGAGGAACCTCAC  
AGGGTGGGCTCAGCCTGGGTTCATTGGAGCAGATGGATGCTAACGGCACGGCGTCCCCAAGATGTGGCCAAC  
AATCCCAGATATTCTTCTGGGCCCAGAGCACTCTACGCTAGCCTGCCTGCTGCCCTGCCCTGCTAGTAACCTTGGA  
CCAGCCCCCTGGCCCCCTCTGTCTGGTGTCCCCCTCTCTGCCCCAGGCTAGCAAGTAGGCTCTTCTTGGAAGCC  
AGCCGCAGATCCTTGCTTTCCCTCAGGCTGGCCACCTGATGGTCTGCAACTCTCGGGAGGCCCTGGGTTTGCCCT  
GGTCTGCTTGGGGTACCCCCACAATCGTCTCACAACCCTGTCTCAGCCCAGTCTGGGATCCCAATGTGAGAAGG  
ACCTTGCTCTGCTCTCATCTTCAAATTTCCCAGACTTGAGGTAAGGGACAGTGGAGAGGGGATGCTGATAAG  
ACAGAGTCTTGACCTGAGCTGAGCATTCCCTGGCCATCCACTCTGTCTGAACCTCAGCAACCCCTTCAACCAAAG  
GGTCTGATGCTGGCCATGGTGATGTGACAGGAGCTCAGGAAGCTCCAAGGAGAGAGGAAGAAGGTATAAATGGGT  
GTTCTGCACTCAGGGAGGACTGGGTGGCTGTGCTTATCGCAACTGGCCTGGTGCCAAGTGAGGGAGGGTGGAAGG  
TGAGGCCAAGGAAGAGGACATGGAGGTGCTGGGAAGACTACTTCTCCCTTGCTGTCTCCAGCAAGTTCCTTCTCTC  
CTGTCTGCATTCTGGGACTCCTGAATACCTGCCCCACCACTGCCTTCCACCCAGGAGCCTCCCCCTGCATTCCG  
GGGTCCCATAGCCTCTTTCACTTTTTACCTTAGGTGAGCACCCCTTGTAAGCTCAGGGCTACTGTTGGGTGTCA  
GGGAACAAAGTTTTAGACTGCTGCGCTCCAAAGCGGGCACACACATGTACCTAGAACACACCAGCCACTGTCCCC  
ACCATGATGATGACACAGCCATGGACACACCCCTGCCCAGGTACACACTCACCAGGAGCTTGTTGGTGATCAACAC  
AGCTATTATACACCCAGCTACCACATCAGCCCCAAAGGTGCCACACCTACATGTGGGATCTGAGGACCGGCTA  
AGCTATCTGGACGTGGCCACCCACAGAGTTCCAGCCTGACTGGCTAGCCACCAACCATGCTCCTGGGAAGGTAG  
CTCTGGGCCCCAGCAAGCAGGTCTCTCAAATTTGGCCTCCAGCTCTCCAAGAGGGATTTCGAAGATCCCACAG  
TACAGCCAGGGTAGGTGTGGAAGTTTTTGTGAGGCTGTGGTGCCAGAGTTGTGTGGCCCTTTCTCACTGTG  
AGTGGTCATAGGGCCATGATTTGTTAGAACCTAGAGGGTCACCTATAACCTACACAGGAGTCAGGTCTGGCTCCT  
GCCACCAGCTCCTGCCTGCGCCTTCCTGCCTCACAAGCAATACTGGCGCTGTTTGCCCATGCTGTCTCTCTACC  
TGGGGTCCCTTCCCCAGCTCCTTCCTTTGGCCTGGAAGACACAGCTCAGGAGCAAGCAGACCCTGACTCCCCCG  
TGACACCTGCAGTTTTATGACTTTGCATTATAATTACTCTTAGTGTCTCTTCCCCAGCCAGTCTGGTTCTCCTT  
GAGGGCAAGGCCATGGTTTTATTATGGCGGTGTCTGAGGCCAGCCAGGGACTAGACCCAGAACTAAGGCTTGG  
AGATGTATTTTGAAGGAGTGAGGGAGGAGCAGCTGTCTTCTGGGGAAGTAGAGCCAGTCCCTGCTGCCCTCCC  
AAGGAGGAAGCCCTAGTATCACCTGCTGGGTGGGCTTCCCTAGGAGAAAGCTGCTACTCAGATTTTGGTCGGC  
TCAGTTCCCCCAACCCAGCCATCCAAGAATATGGTGTTACTGAACCTCTCAGTGCATGGGTGGTGAGGCCCTT  
TATTGCGGAAAAGGGAACTGAAGCCCAGTGAAGAGCAAGCTTTGTACAAGATCGTAGAGCCTGGTAGGGCTGGC  
TTGCCAGGGTGGGAAGTGGAGTGTGGATTAGGTCCCTGCCCTTGGTGGGAGCTCATACTGACAGGAGGTGAGACT  
TGCCAGTGCCTTTAGAGGCCACTGTCCACCCAGACCCTCCACTGGGAGAAGCAGAGGCCAGGATAGGCTGACTT  
GTATGGGTAGGGGATTATTTCACTCTTAAGTCTGGCCAGTGTGGACCTAGGTCCCTCTGAGAGACACTCCTAT  
CCATGGGGAGGTAGCGTGTGACCTCAGGCAGCCTACCATAATCCTGGGGCTTCTCTGGAGGACCCACACAGATC  
TATCATAGGATAAATCTACTTGTCTGTCTAGATCTATCTCAACTAGGACCATTTCATCAGTGGGCCATTTAATCA  
GCCCCTTACAGCCAGGAGGGCACAAACATGAAGCTACTTTGCACTGAATCCTATCAGTGTGGTGAGAACATTAGA  
CATGCCTATAGGGAATGATCTGTGTTTTGGTTGATATAAAATAGAGAGCAATTAATTACTGTTTGTAAATGCA  
GGGCAGTGGAAAAGAATCTTTCAAAGAGGATCCCCACATGGAACAATCAAGGTGGCTTTTGTGATGACAAGTG  
GGGAACGAGATACTGGACTAAGTGAAGCCATGGCTGGGTAGAGGGGAAGCTGAGGCTCATAGTGAGATGGGCCAG  
CCAGAGGTATGAAACTAGTCTGGGGCATAGGGGGTCTCTGGAGATGGGGGAAGC**ATGGG**TCTCCACTCACTG  
CTCATCCACTGCCTTCTAGACCTCGTCCTTTGCTGGCTGTGGAGCGGACTGGGCAGCGGCCCTGTGGGGCCCGT  
CCCTGGAAGTGGCCAAGCCAGTATGCAGCCCTTGCTGCTGGGGCTTCTCTGAGGAGGTGGCAGAGGGTACCC  
CAGCCCAGACAGAGAGTGAGCCAAAGGTGCTGGACCCAGAGGAGGATCTGCTGTGCATAGCCAAGACCTTCTCCT  
ACCTTCGGGAATCTGGCTGGTATTGGGGTTCCATTACGGCCAGCGAGGCCCCGACAACACCTGCAGAAGATGCCAG  
AAGGCAGTTCTTAGTACGTGACAGCACGCCACCCAGCTACCTGTTACGCTGTGAGTGAAAACCACTCGTGGCC  
CCACCAATGTACGCATTGAGTATGCCGACTCCAGCTTCCGTCTGGACTCCAAGTGTGTCCAGGCCACGCATCC

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**FIGURE 178B**

TGGCCTTTCCGGATGTGGTCAGCCTTGTGCAGCAC TATGTGGCCTCCTGCACTGCTGATACCCGAAGCGACAGCC  
CCGATCCTGCTCCACCCCGGCCCTGCCTATGCCTAAGGAGGATGCGCCTAGTGACCCAGCACTGCCTGCTCCTC  
CACCAGCCACTGCTGTACACCTAAACTGGTGCAGCCCTTTGTACGCAGAAGCAGTGCCCCGAGCCTGCAACACC  
TGTGCCGCCTTGTCAACAACGCTCTGGTGGCCGACGTGGACTGCCTGCCACTGCCCCGGCGCATGGCCGACTACC  
TCCGACAGTACCCCTTCCAGCTCTGACTGTACGGGGCAATCTGCCCACCCTCACCCAGTCGCACCCTGGAGGGGA  
CATCAGCCCCAGCTGGACTTGGGCCCCCACTGTCCCTCCTCCAGGCATCCTGGTGCCTGCATACCTCTGGCAGCT  
GGCCCAGGAAGAGCCAGCAAGAGCAAGGCATGGGAGAGGGGAGGTGTCACACAACCTTGGAGGTAAATGCCCCCAG  
GCCGCATGTGGCTTCATTATACTGAGCCATGTGTCTAGAGGATGGGGAGACAGGCAGGACCTTGTCTCACCTGTGG  
GCTGGGCCCAGACCTCCACTCGCTTGCCTGCCCTGGCCACCTGAACTGTATGGGCACTCTCAGCCCTGGTTTTTC  
AATCCCCAGGGTCGGGTAGGACCCCTACTGGCAGCCAGCCTCTGTTTCTGGGAGGATGACATGCAGAGGAACTGA  
GATCGACAGTGACTAGTGACCCCTTGTGAGGGGTAAAGCCAGGCTAGGGGACTGCACAATTATACACTATTTATT  
TATTTATTCTCCTTGGGGTTGGTGTCTAGGGGCGAGCCAACCCACCTCTATGCCCTGAGCCCTGGTAGTCCAGAG  
ACCCCAACTCTGCCCTGGCTTCTCTGGTTCTTCCCTGTGGAAAGCCCATCCTGAGACATCTTGCTGGAACCAAGG  
CAATCCTGGATGTCTGGTACTGACCCACCCGTCTGTGAATGTGTCCACTCTCTTCTGCCCCCAGCCATATTTGG  
GGAGGATGGACAAC TACAATAGGTAAGAAAATGCAGCCGGAGCCTCAGTCCCCAGCAGAGCCTGTGTCTCACCCC  
CTCACAGGACAGAGCTGTATCTGCATAGAGCTGGTCTCACTGTGGCGCAGGCCCCGGGGGGAGTGCCTGTGCTGT  
CAGGAAGAGGGGGTGCTGGTTTGAGGGCCACCACTGCAGTTCTGCTAGGTCTGCTTCCTGCCCAGGAAGGTGCCT  
GCACATGAGAGGAGAGAAATACACGTCTGATAAGACTTCATGAAATAATAATTATAGCAAAGAACAGTTTGGTGG  
TCTTTTCTCTTCCACTGATTTTTCTGTAATGACATTATACCTTTATTACCTCTTTATTTTATTACCTCTATAATA  
AAATGATACCTTTCATGT



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**FIGURE 179**

MGPPLTAHPLPSRPRPLLAVERTGQRPLWAPSLELPKPVMQPLPAGAFLEEVAEGTPAQTESEPKVLDPEEDLLC  
IAKTFSYLRESGWYWGSITASEARQHLQKMPEGTF LVRDSTHPSYLFTLSVKTTTRGPTNVRIEYADSSFR LDSNC  
LSRPRILAFPDVVS LVQHYVASCTADTRSDSPDPAPTALPMPKEDAPSDPALPAPPPATAVHLKLVQPFVRRSS  
ARSLQHLCRLVINRLVADVDCLPLPRRMADYLRQYPFQL

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**FIGURE 180**

GAGTTGTAGCCGAGGTGGCGGCGCGGGGCGGGGCGGGCGGAGAGAGAAGGAAGGAGGTGGTTGTGCAGGATGCGG  
ACGGCGGCCTACGAGCAGCTGAAGCTGCATATCACACCTGAAAAATTTTATGTGGAAGCTTGTGATGATGGAGCA  
GATGACGTACTTACCATTGACCGTGTGTCCACAGAGGTTACCCTTGCAGTCAAGAAAGATGTTCTCCTTCAGCT  
GTCACAAGACCAATATTTGGTATACTGGGCACAATCCATCTGGTGGCAGGTAATTATCTTATAGTCATTACCAAA  
AAGATAAAAGTAGGTGAATTTTTTTCAGTCATGTAGTCTGGAAAGCAACAGATTTTGATGTCCTTTCTTATAAGAAG  
ACAATGTTGCACTTAACATGATATTTCAGTTACAAGATAATAAAACCTTCCTAGCGATGCTAAACCATGTCTTGAAT  
GTGGATGGATTTTACTTTTCAACAACATATGATTTGACCCATACTTTGCAGCGGCTATCCAACACTAGTCTTGAA  
TTCCAAGAAATGAGTCTCTTGGAAAGGGCAGATCAGCGGTTTGTATGGAATGGTCATCTTCTAAGAGAACTTTCT  
GCACAGCCAGAGGTTTCATCGGTTTGCCTTCCAGTGTTACATGGCTTTATTACCATGCATTTCATGTTCTATTAAT  
GGAAAAATACTTTGATTGGATTCTCATCTCGAGGAGGAGCTGTTTCAGAGCTGGTGTGCGCTATTATGTAAGAGGA  
ATTGATTGCGGAAGGCCATGCAGCTAACTTTGTAGAAACAGAAACAAATTGTGCACTACAATGGGAGCAAAGCTTCG  
TTTGTACAGACTCGAGGATCAATACCTGTTTCTGGTCCCAAAGACCAAACCTCAAGTACAAACCACTGCCACAG  
ATCAGCAAAGTAGCAAATCACATGGACGGTTTCCAAAGGCATTTTGATTCCCAAGTAATTATTTATGGAAAACAA  
GTTATAATCAATCTGATTAACCAGAAGGGCTCGGAGAAGCCACTTGAGCAGACATTTGCAACAATGGTGTCTTCC  
TTGGGAAGTGGAATGATGAGATACATTGCCTTTGACTTCCATAAGGAATGTAAAAATATGAGATGGGATCGACTA  
AGTATTTTATTGGATCAGGTAGCAGAAATGCAAGATGAATTAAGTTATTTTCTAGTGGACTCTGCTGGCCAGGTG  
GTGGCAAACCAGGAAGGCGTGTTCGAAGCAATTGCATGGATTGTCTAGATAGAACCAATGTGATCCAGAGTTTG  
TTAGCTCGTCTGTTCACTTCAGGCCCACTTCAGAGACTAGGAGTTTTCATGTGGGACAAAAGCTTGAAGAACAA  
GATGAATTTGAGAAGATTTACAAAAATGCCTGGGCTGACAACGCAAATGCTTGTGCCAAGCAATATGCGGGAAC  
GGTGCCTTGAAGACTGACTTTACCAGAATGGAAGAGAACTCATTGGGACTTATAATGGATGGCTGGAACCTCA  
ATGATACGATATTATAAGAACAACCTTTCCGATGGATTTAGACAAGATTCCATAGACTTATTTCTTGAAACTAT  
TCAGTGGATGAATTAGAATCTCATAGTCCTTTAAGTGTTCCAAGGGACTGGAAATTCCTGGCTTTGCCTATTATC  
ATGGTTGTTGCCTTTTCAATGTGCATTATCTGTTTGCTTATGGCTGGTGACACTTGGACAGAAACACTGGCCTAT  
GTGCTCTTCTGGGGAGTTGCAAGCATTGGAACATTTTTATCATTCTTTACAATGGCAAAGATTTTGTGATGCT  
CCCAGACTGGTCCAGAAAGAAAAGATAGACTGAAATTTGTATTTGTGGAAGCGGCTTGGCTTGGAAAGATTCCATT  
GTGCAGAACTGGAGTCTTTACTGACCCGCTTTCCACATCAGCCCCAAGGTCTTTTAAATGCCTTTATCCAAAAGCA  
CATCTTGTGCTCCATGCAGGATGATGACAGAATTGATCTGATGTTACTGCCTTGATGGTCTCTTTACTATTGGGA  
CAGTTAGATTTATAATTTGAAGCTATTCTGTAATTAATAAATAACCTGAATTCAGCTTGCAAGTGAAGCTGAA  
TCTGTTTCAATTGATTCTATTGATTGTCAATTTAATAGCTGTTGCAGAATAAGTAATATATTTTAAAAACCTAGC  
TCCTTTTCAATTATTTAAAAACAGCAAAATATTTTTGTAGCTCAGTTTCATTATTGTCAATTGTAAGCGGTCCTA  
TTAGCAGGCATACCTTTTCCACACATCTTTGGACTTTTCTTAAAGTTTCAGTAATAAGCTAACTGTGTTTATAAAA  
TGTAAGTCTCTTACAGACATCAAGTAGTTTGATGAGACAGTCTGTGACTTCATGATAGGAAAGAGGAGGATGAGG  
TCTGGGGTTCTTTAAAGTCTCTGGTGGGCTGCCTCATGACTTTAATCAGCTTGAAGTCCAGTGCCAGTGCCAGCAGTT  
TAGGTGTGATGAGAGAATTCAGATATACTTTATCTTTTAAAAAAGTGTAATAAAATCAAAGAATGTAAAGTCT  
ATCTCTTACGCTAGAGGTCCAAAGCTGCCTCTGTTTTAAAGATTATCCCAATGTGGAAGATGCCCATGACTGGTC  
AGCTACTTCCTCCTATACATTTTGGTTTCTTTGAGGGTCACTCATTGAGACACGCAGGCTCTGAGAGGGTCTTG  
TTCTAGATTTTCAATTGCACTTGGAGGGTAACAGCTGCTTTTTTACGCATGGTACTCTTGATGTTTTTCACTCTG  
TCAAGGATTTTGTGGCTATCAATGAATGTGTCTAAACCTTAGTGCTTCCAGGTAGTTATAGTACTCCAAATCAA  
GGACCAACTTAAACGTTAATTTTTGTGCAAAAACAAACCTGAAAAATATGCTTCGGAAACTGTGCATAGTTCTAA  
TTGTAAGTCAGATTGTATATTCAAATGTAAATTAAGAGATTTAAATATTAGAACGGTATGTAAGGTAGTATAATT  
ACCACTATTTTAAATAATTCAGTTAAACACTGCTGCAATATTTTCAGTGTTGTGCTTGAAAAATATGTACAGTTTTT  
TTCCAATATTAATACCTTATGTTGTCTTAAATATTTCTAAAAGCGCTTTATTTTCAGCATTACCTTTTTTTTCAT  
CACTATCTTTTATAAAACATTAATATAAGTCGTTACTTTTAGAAACTAAAGGAAATAATAGCTGGAAAACCTCT  
GTAGTTTAAATCAGTCATTAAACTCACAATAGGGTAAGTAAATATAGCCACCTGTTAACATGTAAATAAGCATA  
ATTTGTTCCAAAGATGGAATATTGAAACTTAGTTTCATGTCTGCTGTAAATATTATTTAAATGCTGCTGGGCATT  
TCACTTAAAGAACTTAATGTCAACAGCTACAACAAAGACCAAATCTGAAGTCTAATGTGGCTGCTTTGTAGGGA  
ATGGACTAATATCAGTGTGTTAGATCTTAAAGGTATCAGTATTTTCAAGATCTGCGACGATTTTATTTCTAAATTC  
ATGTAAGTGTATGTCCATAAGTGAAAATAAAATGTCATATTCTTTCT

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**FIGURE 181**

MATAAYEQKLHITPEKFYVEACDDGADDVLTIDRVSTEVTLAVKKDVPPSAVTRPIFGILGTIHLVAGNYLIVI  
TKKIKVGEFFSHVVWKATDFDVLSYKKTMLHLTDIQLQDNKTFLAMLNHVLNVDGFYFSTTYDLTHTLQRLSNTS  
PEFQEMSLERADQRFVWNGHLLRELSAQPEVHRFALPVLHGFITMHSCSINGKYFDWILISRRSCFRAGVRYV  
RGIDSEGHAANFVETEIQIVHYNGSKASFVQTRGSI PVFWSQRPNLKYKPLPQISKVANHMDGFQRHFDSQVIIYG  
KQVIINLINQKGSEKPLEQTFATMVSSLGSGMMRYIAFDFHKECKNMRWDRLSILLDQVAEMQDELSYFLVDSAG  
QVVANQEGVFRSNCMDCLDRTNVIQSLARRSLQAQLQRLGVLHVGQKLEEQDEFEKIYKNAWADNANACAKQYA  
GTGALKTDFTRTGKRTHLGLIMDGWNSMIRYYKNNFSDGFRQDSIDLFLGNYSVDELESHSPLSVPRDWKFLALP  
IIMVVAFSMCIICLLMAGDTWTETLAYVLFWGVASIGTFFIILYNGKDFVDAPRLVQKEKID

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**FIGURE 182**

CAGTGCGGCGGATGTACGGATGATTAGTGGCTGGCAGGAAGCCCCGCCCTGCCCGCCGCCAGTGTGAGTGGTGT  
TGGCATCAGCTTGGGCAGGTGTGCGGGCTCAGGATGGGGCGGCCGTGTTGAGGAACCCCTGGACTCTCAGAGATGG  
AATTCACCGTGTGCTAGGCTGGTCTGGAGCTCTTGATCTCAAGCGATCCTCCCTGCCCTCGGCCTCCCAACGT  
GCTGGGATTATAGGCGTGAGCCACCGCTCCTGGCCAGGGTCTGTTCTAGTTGCAACAGTTCTTGAAACCCACT  
CGAGAGGGCCACGCCTCCATTACACAGGCCACGCATCACAAGAGGCAACACCAGGAGCCAACATGAGCTCGGGGA  
CTGAAGTGTGTGGCCCGGAGCAGCGCTGCTGGTGCTGTTGGGGGTGGCAGCCAGTCTGTGTGTGCGCTGCTCAC  
GCCAGGTGCAAAGAGGTGAGAGAAAATCTACCAGCAGAGAAGTCTGCGTGAGGACCAACAGAGCTTTACGGGGT  
CCCGGACCTACTCCTTGGTCGGGCAGGCATGGCCAGGACCCCTGGCGGACATGGCACCACAAGGAAGGACAAGC  
TGTTGCAATTCTACCCAGCCTGGAGGATCCAGCATCTTCCAGGTACCAGAACTTCAGCAAAGGAAGCAGACACG  
GGTCGGAGGAAGCCTACATAGACCCCATGGCATGGAGTATTACAAGTGGGGGCGGTTCTCGAAGCCCCCAGAAG  
ATGATGATGCCAATTCCTACGAGAATGTGCTCATTGCAAGCAGAAAACACAGAGACAGGTGCCAGCAGGAGG  
GCATAGGTGGCCTCTGCAGAGGGGACCTCAGCCTGTCACTGGCCCTGAAGACTGGCCCCACTTCTGGTCTCTGTC  
CCTCTGCCTCCCCGGAAGAAGATGAGGAATCTGAGGATTATCAGAACTCAGCATCCATCCATCAGTGGCGCGAGT  
CCAGGAAGGTGATGGGGCAACTCCAGAGAGAAGCATCCCTGGCCCCGTGGGAAGCCCAGACGAGGAGGACGGGG  
AACCGGATTACGTGAATGGGGAGGTGGCAGCCACAGAAGCCTAGGGCAGACCAAGAAGAAAGGAGCCAAGGCAAA  
GAGGGACCACTGTGCTCATGGACCCATCGCTGCCTTCCAAGGACCATTTCAGAGCTACTCAACTTTTAAGCCC  
CTGCCATGGTTGCTCCTGGAAGGAGAACCAGCCACCCTGAGGACCACCTGGCCATGCGTGCACAGCCTGGGAAAA  
GACAGTTACTACGGGAGCTGCAGGCCCGTCAACAAGCCCTCTCCCGACCCAGGCTTTGTGGGGCAGGCACCTGG  
TACCAAGGGTAACCCGGCTCCTGGTATGGACGGATGCGCAGGATTTAGGATAAGCTGTCACCCAGTCCCCATAAC  
AAAACCACTGTCCAACACTGGTATCTGTGTTCTTTTGTGCTATGAATTTGGATTCCTAATTGCTATTGTTGGTTG  
CTGGGGTTTTAAATGATTGATAAGCTTGTACAGTTAACTTATAGAGGGGGAGCCATATTTAACATTCTGGATTTT  
AGAGTAGAGATTTCTGTGTTGTCTCCTAGAAAGCATTACATGTAGTTTATTTAGCATCCTTGTGGGTGGGGCC  
CTGGCTCTCTTCCCCCTTGGTGGGACCTCCCCCTTTCTTTGGGCTTCAGTTCACTCAGGAAGAAATGAGGCTGTG  
CCATCTTTATGTGCTTCCAGTGGAATGTCACTTGCTACAGACAATAGTGCATGAGAGTCTAGAGAAGTAGTGAC  
CAGAACAGGGCAGAGTAGGTCCCCCTCCATGGCCCTGAATCCTCCTCTGCTCCAGGGCTGGCCTCTGCAGAGCTGA  
TTAAACAGTGTTGTGACTGTCTCATGGGAAGAGCTGGGGCCAGAGGGACCTTGAGTCAGAAATGTTGCCAGAAA  
AAGTATCTCCTCCAACCAAAAACATCTCAATAAAACCATTTTAGTTGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 183**

MSSGTELLWPGAALLVLLGVAASLCVRCSPGAKRSEKIYQQRSLREDQQSFTGSRTYSLVGQAWPGPLADMAPT  
RKDKLLQFYPSLEDPASSRYQNFSKGSRHGSEEAYIDPIAMEYYNWGRFSKPPEDDDANSYENVLICKQKTTETG  
AQQEGIGGLCRGDLSSLALKTGPTSGLCPSASPEEDEESEDYQNSASIHQWRESRKVMGQLQREASPGPVGSPD  
EEDGEPDYVNGEVAATEA

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**FIGURE 184**

AGTTGCAGTGGAAAGAAATGTGTCATCTGTGGTTTGGTTTTTAAAAGTGGAAACTAGCTGCACATATCCTTTTT  
TACTGCAGATTTACTTTAAGGCTCATATTCTCCAAGTCTATTCTGCTTTAAAAAGAAGACAAGAAAAAGAAGTGGT  
TTATCAAAATCACGTTATAATCAGATTTTGACCAAGCATTTTGTAAGATTGCCAAGTATGCCACGGACATGGAA  
CACACAGGACATTACCTACATCTTGCCTTTCTGATGACAACAGTTTTTTCTTTGTCTCCTGGAAACAAAAGCAAAC  
TATACCCGTCTGTGGGCTAACAGTACTTCTTCTGGGATTTCAGTTATTCAAACAAGACAGGCAGAAACCAAAT  
GAAACATTAAACACAAACCTATAACTCCTGAAGTAGATTATAAAGGTAATTCTACAAACATGCCTGAAACATCT  
CACATCGTAGCTTTAACTTCTAAATCTGAACAGGAGCTTTATATACCTTCTGTCTCAGCAACAGTCCTTCAACA  
GTACAGAGCATTGAAAACACAAGCAAAAGTCAIGGTGAAATTTTCAAAAAGGATGTCTGTGCGGAAAAACAACA  
AACATGGCTATGCTAATTTGCTTAATTATAATTGCAGTGCTTTTTCTTATCTGTACCTTTCTATTTCTATCAACT  
GTGGTTTTGGCAAACAAAGTCTCTTCTCTCAGACGATCAAAACAAGTAGGCAAGCGTCAGCCTAGAAGCAATGGC  
GATTTTCTGGCAAGCGGTCTATGGCCCGCTGAATCAGACACTTGGAAGAAGCAAAACAGCTCACAGGACCCAAC  
CTAGTGATGCAATCTACTGGAGTGCTCACAGCTACAAGGGAAAGAAAGATGAAGAAGGAAGTGAAGCACTTACT  
AACAAACAGATAGGTTAGTGGAAGAAAAATGCAAAGTAGCAATGAGAAGGCTTATGGAGTAAAAATGAAGTCAGTT  
GGTATTTAATCCCAAAGTGTGTTCTGATTATCTAAATTTGACATGGTAGACCTTGCAATTTAGAATCAAGCAG  
GTGAGACAGGGAGAAGTATGCCTGCTTAATTATTTAACTGTGTACTTTTGTGTTTGACACTGAATATTTTAAAA  
GCAATAATAAAATAACTAAGCATTGAGGAAAATTTTAAGGATAAATTGAGGAACTGATTAATAGAGATAGCA  
AGGGATAATTAAATAAATATTCCTATGTAGCAACAGTGGTTAGATGATCTTTGTCTGAATGTAATAAACTTTG  
AATAGTTTTAGTGTGTCCTTAAAGCCAAGTATATGCTTTAACATCAAATGGAAGTCAAATTCCTAATGCATAGAT  
AGAGAGAGCTAACTGTGTAATTTAATGGTATCTTCCTTGCTGGATGTGGCAGAATCCACACCAGCTTATCAACC  
AACACAGCTAATTTTAGAATAGGTCCTTTATCTTTCCATATGGCACACGTAAGAAAGTGTCTTCTACTATTAAT  
ATTAAATTAAAACCTTTACTTTTGTATAATAAATTAAACTCAGAATAAACCTGTGACCACGT

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**FIGURE 185**

MEHTGHYHLAFLMTTVFSLSPGTKANYTRLWANSTSSWDSVIQNKTGRNQENININTNPITPEVDYKGNSTNMPE  
TSHIVALTSKSEQELYIPSVVSNPSTVQSIENTSKSHGEIFKKDVCAENNNNMAMLICLIIIAVLFLICTFLFL  
STVVLANKVSSLRRSKQVGKRQPRSNGLASGLWPAESDTWKRTKQLTGPNLVMQSTGVLTATRERKDEEGTEK  
LTNKQIG

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**FIGURE 186**

GGTCGCTTGGTGGCTCCGCTCTGTTGTCCGTCCGCCCGCGGGTGCCATCATGGCGGACGCGGCCAGTCAGGTGCTC  
CTGGGCTCCGGTCTCACCATCCTGTCCCAGCCGCTCATGTACGTGAAAGTGCTCATCCAGGTGGGATATGAGCCT  
CTTCCTCCAACAATAGGACGAAATATTTTTGGGCGGCAAGTGTGTCAGCTTCCTGGTCTCTTTAGTTATGCTCAG  
CACATTGCCAGTATCGATGGGAGGCGCGGGTTGTTACAGGCTTAACTCCAAGACTGTGTTCTGGGAGTCCTTGGA  
ACTGTGGTCCATGGTAAAGTTTTACAGCATTACCAGGAGAGTGACAAGGGTGAGGAGTTAGGACCTGGAAATGTA  
CAGAAAGAAGTCTCATCTTCCTTTGACCACGTTATCAAGGAGACAACCTCGAGAGATGATCGCTCGTTCTGCTGCT  
ACCTCATCACACATCCCTTCCATGTGATCACTCTGAGATCTATGGTACAGTTCATTGGCAGAGAATCCAAGTAC  
TGTGGACTTTGTGATTCCATAATAACCATCTATCGGGAAGAGGGCATTCTAGGATTTTTCGCGGGTCTTGTTCCCT  
CGCCTTCTAGGTGACATCCTTTCTTTGTGGCTGTGTAACCTCACTGGCCTACCTCGTCAATACCTATGCACTGGAC  
AGTGGGGTTTCTACCATGAATGAAATGAAGAGTTATTCTCAAGCTGTCACAGGATTTTTTGCGAGTATGTTGACC  
TATCCCTTTGTGCTTGCTCTCCAATCTTATGGCTGTCAACAACCTGTGGTCTTGCTGGTGGATGCCCTCCTTACTCC  
CCAATATATACGTCTTGATAGACTGTTGGTGCATGCTACAAAAAGAGGGGAATATGAGCCGAGGAAATAGCTTA  
TTTTTCCGGAAGGTCCCCTTTGGGAAGACTTATTGTTGTGACCTGAAAAATGTTAATTTGAAGATGTGGGGCAGGG  
ACAGTGACATTTCTGTAGTCCCAGATGCACAGAATTATGGGAGAGAATGTTGATTCTATACAGTGTGGCGCGCT  
TTTTTAATAATCATTTAATCTTGGGAAAATTAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 187**

MADAASQVLLGSGLTILSQPLMYVKVLIQVGYEPLPPTIGRNIFGRQVCQLPGLFSYAQHIASIDGRRGLFTGLT  
PRLCSGVLGTVVHGKVLQHYQESDKGEELGPGNVQKEVSSSFHDHVIKETTREMIARSAATLITHPFHVITLRSMV  
QFIGRESKYCGLCDSIITIIYREEGILGFFAGLVPRLGDI LSLWLCNSLAYLVNTYALDSGVSTMNEMKSYSQAV  
TGFFASMLTYPFVLVSNLMAVNNCGLAGGCPPYSP IYTSWIDWCMLQKEGNMSRGNSLFFRKVPFGKTYCCDLK  
MLI

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**FIGURE 188**

GACGTGAACGGTCGTTGCAGAGATTGCGGGCGGCTGAGACGCCGCTGCCTGGCACCTAGGAGCGCAGCGGAGCC  
CCGACACCGCCCGCCGCC**ATCG**GAGTCCGAGACCGAACCCGAGCCCGTCACGCTCCTGGTGAAGAGCCCCAACCC  
AGCGCCACCGCGACTTGGAGCTGAGTGGCGACCGCGGCTGGAGTGTGGGCCACCTCAAGGCCACCTGAGCCGCG  
TCTACCCCGAGCGTCCGCGTCCAGAGGACCAGAGGTTAATTTATTCTGGGAAGCTGTTGTTGGATCACCAATGTC  
TCAGGGACTTGCTTCCAAAGCAGGAAAAACGGCATGTTTTGCATCTGGTGTGCAATGTGAAGAGTCCTTCAAAAA  
TGCCAGAAAATCAACGCCAAGGTGGCTGAATCCACAGAGGAGCCTGCTGGTTCTAATCGGGGACAGTATCCTGAGG  
ATTCTCAAGTGATGGTTTAAGGCAAAGGGAAGTTCTTCGGAACCTTTCTTCCCTGGATGGGAAAACATCTCAA  
GGCCTGAAGCTGCCCAGCAGGCATTCCAAGGCCTGGGTCTGGTTTCTCCGGTTACACACCCTATGGGTGGCTTC  
AGCTTTCCTGGTTCCAGCAGATATATGCACGACAGTACTACATGCAATATTTAGCAGCCACTGCTGCATCAGGGG  
CTTTTGTTCACCACCAAGTGCACAAGAGATACCTGTGGTCTCTGCACCTGCTCCAGCCCTATTCAACAACAGT  
TTCCAGCTGAAAACAGCCTGCCAATCAGAATGCTGCTCCTCAAGTGTTGTTAATCCTGGAGCCAATCAAAATT  
TGCGGATGAATGCACAAGGTGGCCCTATTGTGGAAGAAGATGATGAAATAAATCGAGATTGGTTGGATTGGACCT  
ATTCAGCAGCTACATTTTCTGTTTTTCTCAGTATCCTCTACTTCTACTCCTCCCTGAGCAGATTCTCATGGTCA  
TGGGGGCCACCGTTGTTATGTACCTGCATCACGTTGGGTGGTTTCCATTTAGACCGAGGCCGGTTCAGAACTTCC  
CAAATGATGGTCTCTCCTGACGTTGTAAATCAGGACCCCAACAATAACTTACAGGAAGGCACTGATCCTGAAA  
CTGAAGACCCCAACCACCTCCCTCCAGACAGGGATGTACTAGATGGCGAGCAGACCAGCCCTCCTTTATGAGCA  
CAGCATGGCTTGCTTCAAGACTTTCTTTGCCTCTCTTCTTCCAGAAGGCCCCCAGCCATCGCAAAC**TGA**TGGT  
GTTTGTGCTGTAGCTGTTGGAGGCTTTGACAGGAATGGACTGGATCACCTGACTCCAGCTAGATTGCCTCTCCTG  
GACATGGCAATGATGAGTTTTTAAAAAACAGTGTGGATGATGATATGCTTTTGTGAGCAAGCAAAAGCAGAAACG  
TGAAGCCGTGATACAAATTGGTGAACAAAAATGCCAAGGCTTCTCATGTCTTTATTCTGAAGAGCTTTAATAT  
ATACTCTATGTAGTTTAATAAGCACTGTACGTAGAAGGCCTTAGGTGTTGCATGTCTATGCTTGAGGAACTTTTT  
CAAATGTGTGTGTCTGCATGTGTGTTTGTACATAGAAGTCATAGATGCAGAAAGTGGTTCTGCTGGTACGATTTGA  
TTCCTGTTGGAATGTTTAAATTACACTAAGTGTACTACTTTATATAATCAATGAAATTGCTAGACATGTTTTAGC  
AGGACTTTTCTAGGAAAGACTTATGTATAATTGCTTTTTAAATGCAGTGCTTTACTTTAAACTAAGGGGAACCTT  
TGCGGAGGTGAAAACCTTTGCTGGGTTTTCTGTTCAATAAAGTTTTACTATGAATGACCCTGAAAAAAAAAAAA  
AAAAAAAA

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**FIGURE 189**

MESETEPEPVTL LVKSPNQRRDLELSGDRGWSVGH LKAHLSRVYPERPRPEDQR LIYSGKLLLDHQCLRDLLPK  
QEKRHVLHLVCNVKSPSKMPEINAKVAESTE EPAGSNRGQYPEDSSSDGLRQREVLRLNLSSPGWENISRPEAAQQ  
AFQGLGPGFSGYTPYGWLQLSWFQQIYARQYYMQYLAATAASGAFVPPPSAQEIPVVSAPAPAPIHNQFPAENQP  
ANQNAA PQVVNPGANQNLRMNAQGGPIVEEDDEINRDWLDWTYSAATFSVFLSILYFYSSLSRFLMVMGATVVM  
YLHHVGWFFFRPRPVQNFNDGPPPDVVNQDPNNNLQEGTDPETEDPNHLPDRDVL DGEQTSPSFMSTAWLVFK  
TFFASLLPEGPPAIAN

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**FIGURE 190A**

GGCGAGCTAAGCCG3AGGATGTGCAGCTGCGGGCGGCGGCCGGCTACGAAGAGGACGGGGACAGGCGCCGTGCG  
AACCGAGCCAGCCAGCCGAGGACGCGGGCAGGGCGGGACGGGAGCCCGGACTCGTCTGCCGCCGCCGTGCTCG  
CCGTGCTGCCGGCCCCGCGTCCCCGCGCGGAGCGGGAGGAGCCGCCACCTCGCGCCCCAGCCGCCGCTAGC  
GCGCGCCGGGCATGGTCCCCTCTTAAAGGCGCAGGCCGCGGGCGGGGGCGGGCGTGCAGAAACAAAGCGCCGGC  
GCGGGGCTGCGGGCGGCTCGGGGGCCGCGATGGGCGCGGGCGGGCCCCGCGGCGGGCGGGCGCTGCCCGGGCCGG  
GCCTCGCGGGCGCTAGGGCGGGCTGGCCTCCGCGGGCGGGGGCAGCGGGCTGAGGGCGCGGGGGCCTGCCGGCGC  
GGCGGGCGGGCGGGCGGGCGGGCCCCGGCGGGCGGAGCGGCGCGGGC**ATG**CGCGCGCGGGCCGGCGCGCCTGGCTCA  
GCGTGCTGCTCGGGCTCGTCTGGGCTTCGTGCTGGCCTCGCGGCTCGTCTGCCCGGGCTTCCGAGCTGAAGC  
GAGCGGGCCACGGCGCCGCGCCAGCCCCGAGGGCTGCCGGTCCGGGCAGGCGGGCGGCTTCCAGGCCGGCGGGG  
CGCGCGGGCGATGCGCGCGGGGCGCAGCTCTGGCCGCCGGCTCGGACCCAGATGGCGGCCCGCGCGACAGGAACT  
TTCTCTTCGTGGGAGTCATGACCGCCAGAAATACCTGCAGACTCGGGCCGTGGCCGCTACAGAACATGGTCCA  
AGACAATTCCTGGGAAAGTTCAGTTCTTCTCAAGTGAGGGTCTGCACATCTGTACCAATTCAGTAGTGCCAC  
TACGGGGTGTGGACGACTCCTACCCGCCCCAGAAGAAGTCTTTCATGATGCTCAAGTACATGCACGACCACTACT  
TGGACAAGTATGAATGGTTTATGAGAGCAGATGATGACGTGTACATCAAAGGAGACCGTCTGGAGAATTCCTGA  
GGAGTTTGAACAGCAGCGAGCCCTCTTTCTTGGGCAGACAGGCTGGGCACCACGGAAGAAATGGGAAAATGG  
CCCTGGAGCCTGGTGAGAACTTCTGCATGGGGGGCCTGGCGTGATCATGAGCCGGGAGGTGCTTCGGAGAATGG  
TGCCGCACATTGGCAAGTGTCTCCGGGAGATGTACACCACCCATGAGGACGTGGAGGTGGGAAGGTGTGTCCGA  
GGTTTGCAGGGGTGCAGTGTGTCTGGTCTTATGAGATGCAGCAGCTTTTTTATGAGAATTACGAGCAGAACAAA  
AGGGGTACATTAGAGATCTCCATAACAGTAAAATTACCAAGCTATCACATTACACCCCAACAAAAACCCACCCT  
ACCAGTACAGGCTCCACAGCTACATGCTGAGCCGAAGATATCCGAGCTCCGCCATCGCACAAATACAGCTGCACC  
GCGAAATTGTCCTGATGAGCAAATACAGCAACACAGAAATTCATAAAGAGGACCTCCAGCTGGGAATCCCTCCCT  
CCTTCATGAGGTTTCAGCCCCGCCAGCGAGAGGAGATTCTGGAATGGGAGTTTCTGACTGGAAAATACTTGTATT  
CGGCAGTTGACGGCCAGCCCCCTCGAAGAGGAATGGACTCCGCCAGAGGGAAGCCTTGGACGACATTGTATGC  
AGGTTCATGGAGATGATCAATGCCAACGCCAAGACCAGAGGGCGCATCATTGACTTCAAAGAGATCCAGTACGGCT  
ACCGCCGGGTGAACCCCATGTATGGGGCTGAGTACATCCTGGACCTGCTGCTTCTGTACAAAAGCACAAAGGGA  
AGAAAATGACGGTCCCTGTGAGGAGGCACGCGTATTTACAGCAGACTTTCAGCAAAATCCAGTTTGTGGAGCATG  
AGGAGCTGGATGCACAAGAGTTGGCCAAGAGAATCAATCAGGAATCTGGATCCTTGTCTTTCTCTCAAACCTCC  
TGAAGAAGCTCGTCCCTTTTCAGCTCCCTGGGTGCAAGAGTGAGCACAAAGAACCACAAAGATAAAAGATAAACA  
TACTGATTCTTTGTCTGGGCGTTTCGACATGTTTGTGAGATTTATGGGAACTTTGAGAAGACGTGTCTTATCC  
CCAATCAGAACGTCAAGCTCGTGGTTCTGCTTTTCAATTCTGACTCCAACCCTGACAAGGCCAAACAAGTTGAAC  
TGATGACAGATTACCGCATTAAGTACCCTAAAGCCGACATGCAGATTTTGCTGTGTCTGGAGAGTTTCAAGAG  
CCCTGGCCCTGGAAGTAGGATCCTCCAGTTTAAACAATGAATCTTTGCTCTTCTCTGCGACGTGACCTCGTCT  
TTACTACAGAATTCCTTCAGCGATGTCGAGCAAATACAGTTCTGGGCCAACAAATATATTTCCAATCATCTTCA  
GCCAGTATGACCCAAAGATTGTTTATAGTGGGAAAGTTCCAGTGACAACCATTTTGCTTTACTCAGAAAACGTG  
GCTTCTGGAGAACTATGGGTTTGGCATCACGTGTATTTATAAGGGAGATCTTGTCCGAGTGGGTGGCTTTGATG  
TTTCCATCCAAGGCTGGGGGCTGGAGGATGTGGACCTTTTCAACAAGGTTGTCCAGGCAGGTTTGAAGACGTTTA  
GGAGCCAGGAAGTAGGAGTAGTCCACGTCCACCATCCTGTCTTTTGTGATCCCAATCTTGACCCCAACAGTACA  
AAATGTGCTTGGGGTCCAAAGCATCGACCTATGGGTCCACACAGCAGCTGGCTGAGATGTGGCTGGAAAAAATG  
ATCCAAGTTACAGTAAAAGCAGCAATAATAATGGCTCAGTGAGGACAGCCT**TAA**TGTCCAGCTTTGCTGGAAAAGA  
CGTTTTTAATTATCTAATTTATTTTCAAAAATTTTTGTATGATCAGTTTTTGAAGTCCGTATACAAGGATATA  
TTTTACAAGTGGTTTTCTTACATAGGACTCCTTTAAGATTGAGCTTTCTGAACAAGAAGGTGATCAGTGTGTC  
TTTGAACACATCTTCTTGTGAACATTATGTAGCAGACCTGCTTAACTTTGACTTGAAATGTACCTGATGAACAA  
AACTTTTTTAAAAAATGTTTTCTTTTGGAGCCCTTTGCTCCAGTCTTATGGCAGAAAACGTGAACATTCTTGCA  
AAGTATTATTGTAACAAAACACTGTAACCTCTGGTAAATGTTCTGTTGTGATTGTTAACATTCCACAGATTCTACC  
TTTTGTGTTTTGTTTTTTTTTTTTTACAATTGTTTAAAGCCATTTTCATGTTCCAGTTGTAAGATAAGGAAATGT  
GATAATAGCTGTTTCATCATTGTCTTCAGGAGAGCTTTCCAGAGTTGATCATTTCCCTCATGGTACTCTGTCTCA  
GCATGGCCACGTAGGTTTTTTTGTGTTTTGTTTTGTTCTTTTTTTGAGACGGAGTCTCACTCTGTTACCCAGGC  
TGGAATGCAGTGGCGCAATCTTGCTCACTTTAACCTCCACTTCCCTGGTTCAAGCAATTCCTGCTTTGCT

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**FIGURE 190B**

CCCGAGTAGCTGGGATTACAGGCACACACCACCACGCCAGCTAGTTTTTTGTATTTTATAGTAGAGACGGGGTT  
TCACCATGCAAGCCCAGCTGGCCACGTAGGTTTTAAAGCAAGGGGCGTGAAGAAGGCACAGTGAGGTATGTGGCT  
GTTCTCGTGGTAGTTCATTTCGGCCTAAATAGACCTGGCATTAAATTCAAGAAGGATTTGGCATTCTCTCTTCTT  
GACCCTTCTCTTTAAAGGGTAAAATATTAATGTTTAGAATGACAAAGATGAATTATTACAATAAATCTGATGTAC  
ACAGACTGAAACACACACACATACACCCTAATCAAAACGTTGGGGAAAAATGTATTGGTTTTGTTTCCTTTCATC  
CTGTCTGTGTTATGTGGGTGGAGATGGTTTTTCATTCTTTCATTACTGTTTTGTTTTATCCTTTGTATCTGAAATA  
CCTTTAATTTATTTAATATCTGTTGTTTCAGAGCTCTGCCATTTCTTGAGTACCTGTTAGTTAGTATTATTTATGT  
GTATCGGGAGTGTGTTTAGTCTGTTTTATTTGCAGTAAACCGATCTCCAAAGATTTCTTTTGGAAACGCTTTTT  
CCCCTCCTTAATTTTTATATTCCTTACTGTTTTACTAAATATTAAGTGTTCTTTGACAATTTTGGTGCTCATGTG  
TTTTGGGGACAAAAGTGAAATGAATCTGTCATTATACCAGAAAAGTTAAATTCAGATCAAATGTGCCTTAATAA  
ATTTGTTTTCATTTAGATTTCAAACAGTGATAGACTTGCCATTTTAATACACGTCATTGGAGGGCTGCGTATTTG  
TAAATAGCCTGATGCTCATTGGAATAAACCAGTGAACAATATTTTCTATTGTACTTTTCAGAACCATTTT  
GTCTCATTATTCCTGTTTTAGCTGAAGAATTGTATTACATTTGGAGAGTAAAAAAGTTAAACACG

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**FIGURE 191**

MAARGRRAWLSVLLGLVLGFVLASRLVLPRASELKRAGPRRRASPEGCRSGQAAASQAGGARGDARGAQLWPPGS  
DPDGGPRDRNFLVGVMTAQKYLQTRAVAAAYRTWSKTIPGKVQFFSSEGS DTSVP IPVVPLRGVDDSYPPQKKSF  
MMLKYMHDHYLDKYEFMRADDDVYIKGDRLNENFLRSLNSSEPLFLGQTGLGTTEEMGKLALPGENFCMGGPGV  
IMSREVLRRMVPHIGKCLREMYTTTHEDVEVGRCVRRFAGVQCVWSYEMQQLFYENYEQNKKGYIRDLHNSKIHQA  
ITLHPNKNPPYQYRLHSYMLSRKISELRHRTIQLHREIVLMSKYSNTEIHKEDLQLGIPPSFMRFPQPRQREEILE  
WEFLTGKYLYSAVDGQPPRRGMDSAQREALDDIVMQVMEMINANAKTRGRIIDFKEIQYGYRRVNP MYGA EYILD  
LLLLYKKHKGKKMTVPVRRHAYLQQTFSKIQFVEHEELDAQELAKRINQESGSLSFLSNSLKKLVFPQLPGSKSE  
HKEPKDKKINILIPLSGRFDMFVRFMGNFEKTCLIPNQNVKLVLLFNSDSNPDKAKQVELMTDYRIKYPKADMQ  
ILPVSGEFSRALALEVGSSQFNNESSLFFCDVDLVFTTEFLQRCRANTVLGQQIYFPIIFSQYDPKIVYSGKVPS  
DNHF AFTQKTGFWRNYGFGITCIYKGD LVRVGGFDVSIQGWGLEDDVDFNKKVVQAGLKTFRSQEVGVVHVHHPVF  
CDPNLDPKQYKMCLGSKASTYGSTQQLAEMWLEKNDPSYSKSSNNNGSVRTA

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**FIGURE 192A**

GGTGTGGACGTTGTCTAAATTTCCGGTAGCCATGGCACAAGAATATAAGAAAGCATGGGATTATGGCAACCACAGA  
ATCTCAGTAGTACAAGTTCCATTTCAGTTTTTTCTGAAAGAAAGCCCTCTGTTAAAGTGAAACAAAGAACTGTTG  
TGGATTATAACGTTTAGAAGTTCCAATTTTTCTAGTGCTTTACAAATAAAGCATCATTAAACCTTTTAAATGAAAA  
AGATTAAGATCTCATGCAACTGTTGTATTTTTCTGGAAGCCATTCTCCAAAAGGGAAGTGCACATTTAAAACACAG  
ATATGATGGTCCTTGCTGCAGGGATTAAAGTCTACTTGCTTTTACATCATGACCAGCTTGAAACGGTCACAGACA  
GAAAGGCCTCTTGCCACTGACAGGGCCTCTGTTGTGGCACAGACGGCACCCCAAAGTCCACACTGATGATTTTC  
TACATGCGGCGCTTCCGGTCCCAAAATGGCAGCTTAGGATCATCAGTTATGGCTCCTGTAGGACCCCCCGAAGT  
GAAGGTTCTCACCATAATAACCTCAACCCCGGAGTCCCAAAAATGGGGTAAGGGCAAGGATTGCAGATTGGCCC  
CCAAGAAAGGAAAACATAAAAGAATCTAGCCGTTCAAGCCAGGAAATAGAAACCTCAAGTTGCCTTGATAGCCTG  
TCCTCCAAAAGCAGTCTGTGAGTCAGGGAAGTTCGTTAGCCTCAATTCCAATGACTCAGCCATGCTGAAAAGC  
ATACAGAACACGCTGAAAAACAAGACAAGACCGTCGGAGAACATGGACTCCAGATTTCTCATGCCTGAAGCCTAC  
CCCAGCTCCCCAGAAAAGCTCTTCGCAGAATACGCCAGCGAAGCAACAGTGATATCACCATAAGTGAACCTTGAT  
GTGGATAGCTTTGATGAATGTATCTCACCTACATAACAAGACTGGACCATCACTGCACAGGGAATATGGTAGCACA  
TCTTCAATTGATAAACAGGGAACATCTGGAGAAAGCTTTTTTGATTGTAAAGGGCTACAAAGATGACAAATCT  
GATCGAGGTCCAACCTCCAACCAAGCTCAGTGACTTTCTCATTACTGGTGGTGGCAAGGGTTCTGGTTTTCTTTTG  
GATGTAATAGACGGGCCTATCTCACAGAGAGAGAACCTCAGGCTTTTAAAGGAAAGGGAAAAACCACTCAAGCGA  
CGTTCAAAATCTGAAACTGGAGACTCCTCTATTTTTCGTAAATTGCGCAATGCCAAAGGTGAAGAACTTGGGAAG  
TCATCAGATCTTGAAGATAACCGATCAGAAGACTCTGTGACGGCCTGGACATGTCCAAAGTGCTTTGCCACTAT  
GATGTCCAGAGTATATTATTTGATTTGAATGAGGCAATTATGAACAGGCACAATGTTATTAAGAGGAGAAACACC  
ACCACTGGAGCTTCCGCAGCTGCCGTGGCATCCTTGGTCTCTGGACCTCTGTCTCATTTCAGCCAGTTTTAGCTCC  
CCAATGGGCAGCACAGAGGACCTGAATTCCAAGGAAGCCTCAGCATGGACCAGGGAGATGATAAAAGCAATGAG  
CTTGTAATGAGCTGTCCATATTTTCGGAATGAGATAGGTGGAGAAGGGGAGAGGAAAAATCAGCCTTTCAAAATCA  
AATTCTGGCTCCTTTAGTGATGTGAAAGTGCCCTCCTTTGAGTCTACCCTTAGTTCCTTTCATTGCACAAATGCAGGA  
GTGGCAGTACTTGAAGTGCCCAAGGAGAACTTGGTGTGACCTAGATAGAGTGAAAAGATACATCGTGGAACAC  
GTAGATCTGGGTGCATACTATTATAGAAAAATTTTTCTACCAGAAGGAACACTGGAATTTTTGGGGCTGATGAG  
AATCTTGGTCCAGTGCTGTGAGCATTGGAAGGAAAAACAGATGAAATGAAAGAAAATGGATCTCCGTACAAC  
TACCGAATAATTTTTAGAACTAGTGAGCTCATGACACTGAGAGGTTTCGGTCTGGAGGACGCCATTCCGTGCACA  
GCCAAGCACTCGACAGCCAGAGGCCTGCCTCTCAAAGAAGTGCTGGAGCACGTGGTTTCCTGAGCTCAATGTCCAG  
TGCTTGCGGTTGGCCTTCAACACACCCCAAGGTCACAGAGCAGCTCATGAACTGGATGAACAAGGGCTGAACTAC  
CAGCAGAAAGTAGGCATCATGTACTGCAAAGCTGGACAGAGCACTGAAGAAGAGATGTACAACAATGAGTCAGCT  
GGCCCAGCCTTTGAAGAATTCCTTCAACTATTGGGAGAGCGAGTTTCGGCTCAAAGGATTTGAGAAGTATCGAGCA  
CAGCTTGATACAAAACCTGACTCCACTGGAACCCATTCTCTGTACACAACATACAAAGATTATGAAATTATGTTT  
CATGTTTCTACCATGCTGCCATACACACCCCAACAACAACAACAGCTCCTGAGGAAGCGGCACATTGGAAATGAT  
ATCGTAACAATTGTTTTCCAAGAGCCTGGAGCACAGCCATTACAGCCAAAAAACATCCGATCCCACTTCCAGCAC  
GTTTTCGTCATCGTCAGGGTGACAATCCGTGCTCTGACAGTGTCTGTTATAGTGTGGCTGTTACCAGGTCCAGA  
GATGTGCCTTCCTTTGGGCCTCCCATTCCTAAAGGGGTCACCTTCCCTAAGTCAAATGTGTTTCAGGGACTTCCTT  
TTGGCGAAAGTGATTAATGCAGAAAATGCTGCTCATAAATCGGAGAAGTTTCGGGCCATGGCAACTCGGACCCGC  
CAGGAATACCTGAAAGATCTGGCAGAAAAGAATGTCACCAACACCCCTATCGACCCTTCTGGCAAGTTCCGTTC  
ATCTCTCTGGCTTCCAAGAAGAAGGAAAAAGTCTAAGCCATATCCAGGAGCCGAGCTCAGCAGCATGGGGGCCATT  
GTATGGGCAGTCCGGGCTGAAGACTACAACAAGGCCATGGAAGTACTGACCTTTTAGGGATCTCCAATGAGTTC  
ATTGTGCTCATTGAACAGGAAACAAAGAGCGTGGTCTTCAATTGTTCTGTAGAGATGTGATAGGGTGGACTTCA  
ACTGACACCAGCCTCAAAATCTTCTATGAACGAGGAGAATGTGTTTCAGTGGGTAGTTTTATTAAACATTGAGGAG  
ATCAAAGAGATTGTCAAAGGTTGCAGTTTGTTCAAAAGGCTGTGAATCGGTGGAGATGACTCTGCGAAGAAAT  
GGGCTAGGACAGCTTGGCTTCCATGTCAACTATGAGGGCATTGTGGCGGATGTGGAGCCCTACGGTTATGCCCTGG  
CAGGCAGGGCTGAGGCAGGGCAGTCGCCTGGTGGAGATCTGCAAGGTGGCGGTAGCCACTCTGAGCCATGAGCAG  
ATGATCGACCTCCTGAGAACATCTGTACCGGTGAAGGTTGTATCATTCCTCCCGCATGATGACTGCACCCCGCGG  
AGGAGTTGCTCTGAAACCTACCGCATGCCAGTGATGGAGTACAAATGAATGAAGGTGTTTCATACGAATTCAAG  
TTTCCCTTCCGAAATAATAACAAGTGGCAGAGGAACGCCAGCAAGGGGCCTCATTACCTCAAGTCCCGTCCAG

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**FIGURE 192B**

GTGCAGAGTCCCATGACCTCGCGGCTGAATGCTGGAAAAGGAGATGGGAAGATGCCTCCTCCAGAAAGAGCCGCC  
AACATCCCTCGAAGCATCTCCAGTGACGGGCGCCCACTAGAGAGGCGGCTGTCTCCTGGTTTCGGACATCTATGTG  
ACGGTCTCATCCATGGCTTTAGCAAGATCCCAGTGTCGGAACCTCCTAGCAACTTGICTTCATCCAGTGATACT  
GGTTCTGTGGGGGGCACTTACAGGCAGAAGTCCATGCCCCGAAGGGTTTGGAGTGAGCCGTAGATCCCCAGCCTCC  
ATTGACAGGCAGAACACCCAGTCAGATATTGGTGGCAGCGGAAAAATCCACGCCTAGCTGGCAAAGAAGTGAGGAT  
AGCATTGCTGACCAGATGGCTTACAGTTATAGAGGACCTCAGGATTTCAATTCTTTTGTCTCGAGCAGCATGAA  
TATACAGAGCCAAACATGCCATCTCCCAGCAGTATCAAAGGTAAGTCCAGCTTTCCGAGAGAGCCCCAGTGGGAGA  
TTAATGCGGCAGGATCCAGTGGTTCAATTTGTCTCCAAACAACAAGGGCATTCTGATAGCCACTACTCGAGCCAC  
TCCAGTAGCAATACTCTCTCCAGCAATGCGTCAAGTGCCCATAGTGATGAGAAGTGGTACGATGGGGACCGCACA  
GAATCCGAACCTCAACAGCTATAACTATCTGCAAGGCACCTCTGTGACAGTGGCATTGACACCACCTCTTATGGC  
CCCAGCCACGGCAGCACAGCCTCGCTGGGGGCTGCCACATCGTCACCTCGCTCAGGGCCAGGCAAGGAGAAAAGTG  
GCACCCCTATGGCACAGCTCCAGTGAAGTAATCTCCATGGCAGATCGGACTTTGGAGACAGAGAGCCACGGCCTG  
GACCGGAAAACAGAGTCTTCCCTGAGCTTAGACATACACAGCAAGAGCCAAGCCGGCTCGACCCCTCTGACAAGG  
GAGAACAGCACCTTCAGTATAAACGATGCTGCTTCCACACAAGTACCATGAGCTCCCGACACTCTGCCAGCCCA  
GTGGTTTTTACCAGTGCCCGGAGTTACCTAAAGAAGAGCTTCATCCAGCTGCCCCCTCACAGCTCGCACCATCC  
TTCTCCTCCTCTTCTCCTCCTCCTCTGCTCTAGGAGTTTTTACCCTCGCCAGGGCGCTACTAGCAAGTACCTG  
ATTGGATGGAAAAAACCCGAAGGAACCATAAACTCGTGGGATTTATGGACACGAGAAAGCGTCATCAGAGCGAT  
GGCAATGAAATAGCCACACCAGGCTGCGTGCCTCAACCAGAGACCTCCGGGCATCTCCTAAGCCAACCTCCAAG  
TCCACCATTTGAAGAAGATCTAAAGAACTAATTGATCTTGAAAGCCCAACTCCTGAATCACAGAAGAGTTTTAAG  
TTCCACGCACTCTCCTCTCCTCAGTCTCCTTTCCCCAGCACCCCCACCTCACGGCGGGCCTTGACAGAACACTG  
TCGGACGAGAGCATTTACAATAGCCAGAGGGAGCACTTTTTTACCTCCAGGGCGTCACTTCTGGACCAAGCCCTG  
CCCAACGACGTCCCTCTTCAGTAGCACGTACCCTTCTCTCCCCAAGTCGCTCCCGTTGAGGAGGCCTTCTTACACC  
TTAGGAATGAAATCGCTGCATGGAGAGTTCTCAGCCTCGGACAGCTCCCTCACTGACATCCAGGAGACCCGCGAGG  
CAGCCTATGCCCCGACCCTGGCCTGATGCCCCCTGCCTGACACTGCTGCAGACTTGGATTGGTCCAACCTGGTAGAT  
GCTGCCAAAGCCTATGAGGTCCAGAGAGCCTCATTTTTTTGTCTGCTAGTGATGAAAACCATCGCCCCCTTGAGTGCT  
GCATCCAACAGTGATCAGCTGGAGGACCAGGCTCTGGCCAGATGAAGCCTTACAGCAGCAGTAAAGACTCCTCT  
CCCCTCTGGCTTCTTAAAGTGGACCAGCTGGAAGGTATGCTGAAGATGCTTCGGGAAGATTTGAAGAAGGAAAAA  
GAAGACAAAGCTCACCTTCAGGCGGAGGTGCAGCACCTGCGAGAGGACAACCTGAGGCTACAGGAGGAGTCCCAG  
AACGCCTCGGACAAGCTGAAGAAGTTCACAGAATGGGTCTTCAACACCATAGACATGAGCTAGGGAAGGCTGAGG  
AGGACAGGAGAAGGGCCAGACACTCCCTCCAGTGAGTGCTCTGCAGCCCTTATTCCTCCATAGAAAGCATCCT  
CAGAGCACCTTCCCTGGCTTCCTACTCTGCCCCCTTTCGGGGAGTGACAAACACAATAGTTGCAGATCAACAATC  
ATCACCTGCCTTTTGTAGAAAAGAAAAACAAAAAAGTAAATAAAAAATTTTAAACAGTAAAATAAAAGTTTAACT  
GCTAAAAA



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**FIGURE 193**

MTSLKRSQTERPLATDRASVVGTDGTPKVHTDDFYMRFRSQNGSLGSSVMAPVGPPRSEGSHHITSTPGVPKMG  
VRARIADWPPRKENIKESSRSSQEIETSSCLDSLSSKSSPVSQGSVSLNSNDSAMLKSIQNTLKNKTRPSENMD  
SRFLMPEAYPSSPRKALRRIRQRSNDITISELDVDSFDECISPTYKTGPSLHREYGSTSSIDKQGTSGESFFDL  
LKGYKDDKSDRGPTPTKLSDFLITGGGKSGSGLDVIDGPISQRENLRFLKEREKPLKRRSKSETGDSSIFRKLK  
NAKGEELGKSSDLEDNRSEDSVRPWTCPKCFAHYDVQSILFDLNEAIMNRHNVIKRRNTTTGASAAVASLVSGP  
LSHSASFSSPMGSTEDLNSKGSLSMDQGDDKSNELVMSCPYFRNEIGGEGERKISLSKSNSGSFSGCESASFEST  
LSSHCTNAGVAVLEVPEKNLVLHLDRVKRYIVEHVDLGAYYRKFYQKEHWNYPGADENLGPVAVSIRREKPDE  
MKENGSPYNYRIIFRTSELMTLRGSVLEDAIPSTAKHSTARGLPLKEVLEHVPELVQCLRLAFNTPKVTEQLM  
KLDEQGLNYQQKVGIMYCKAGQSTEEEMYNNESAGPAFEFFLQLLGERVRLKGFKEYRAQLDTKTDSTGTHSLYT  
TYKDYEIFHVVSTMLPYTPNNKQQLLRKRHIGNDIVTIVFQEPGAQPFSPKNIRSHFQHVFIIVRVHNPCSDSVC  
YSVAVTRSRDVPSPGPPPIPKGVTFPKSNVFRDFFLLAKVINAENAAHKSEKFRAMATRTRQEYLKD LAEKNVTNTP  
IDPSGKFPFISLASKKKEKSKPYPGAELSSMGAIVWAVRAEDYNKAMELDCLLGISNEFIVLIEQETKSVVFNCS  
CRDVIGWTSTDTSLKIFYERGECSVSGSFINIEEIKEIVKRLQFVSKGCESVEMTLRRNGLGQLGFHVNYEGIVA  
DVEPYGYAWQAGLRQGSRLVEICKVAVATLSHEQMIDLLRTSVTVKVVIIPPHDDCTPRRSCSETYRMPVMEYKM  
NEGVSYEFKFPFRNNKNWQRNASKGPHSPQVPSQVQSPMTRS LNAGKGDGKMPPPERAANIPRSISSDGRPLERR  
LSPGSDIYVTVSSMALARSQCRNSPSNLSSSSDTG SVGGTYRQKSMPEGFGVSRSPASIDRQNTQSDIGGSGKS  
TPSWQRSEDSIADQMAYSIRGPQDFNSFVLEQHEYTEPTCHLPAVSKVLP AFRESPPSGRLMRQDPVVHLS PNKQG  
HSDSHYSSSSSNTLSSNASSAHSDEKWDGDRTESELNSYNLQGT SADSGIDTTSYGPSHGSTASLGAATSSP  
RSGPGKEKVAPLWHSSEVISMADRTLETESHGLDRKTESSLSLDIHSKSQAGSTPLTRENSTFSINDAASHTST  
MSSRHSASPVVFTSARSSPKEELHPAAPSQ LAPSFSSSSSSSSGPRS FYPRQGATSKYLIGWKKEGTINSVGFM  
DTRKRHQSDGNEIAHTRLRASTRDLRASPKPTSKSTIEEDLKKLIDLESPTPESQKSFKFHALSSPQSPFPSTPT  
SRRALHRTLSDESIYNSQREHFFTSRASLLDQALPNDVLFSSSTYPSLPKSLPLRRPSYTLGMKSLHGEFSASDSS  
LTDIQETRRQPMPPGLMPLPD TAADLDWSNLVDAAKAYEVQRASFFAASDENHRPLSAASNSDQLEDQALQMK  
PYSSSKDSSPTLASKVDQLEGMLKMLREDLKKEKEDKAHLQAEVQHLREDNLRLQEESQNASDKLKKFTEWVFNT  
IDMS

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FIGURE 194A

GTGACCACGGACCA3GCAGTCTCTAATGAATAGGCAAGGCCACAACCTCCATTCTCCCAGAAAAGAAGAAATGCT  
CATCTGAAATTCATCACCTCTCTGGAGTCTTCAAACCTGACCAAGCATTGAAAAGAACACAGTTTCAGAAAACAGT  
TTCCAGTGCCTCTGGCCTTCTACTGAAAGCAGACACAGAGTGCATGAAGACCGTTCAAATATGTCAGGGGACCTC  
CTCCCATGAGTCTTCTATGACTCCCTCTCAGACATGCAGGAAGAAAGCAAGAATACTGACTTCTTCCCGGGCCT  
TTCTGCTTTCTCAGCCAGGAAGAGATAAACAAGAGTCTTGACCTGGCCCCGAGAGCCATAGCCGACTCCGAAAC  
AGAAGATTTTGACTCGGAAAAGGAGATCTCGCAGATTTTCAGTACTTCTCCTGCAAGCCTCTGTGAACATCCTTC  
CCATAAGGAGACCAAATTGGGTGAACACGCCTCGAGGAGACCTCAGGATAACAGGTCAACACCTGTCCAGCCTCT  
GGCAGAGAAAACAACTAAGAGTATCTCTTACCTGTTTCAAAGAGGAAACCTGCCATGTCACCCCTGCTCACCAG  
GCCCAGCTACATCCGGAGCCTCCGAAAGGCTGAAAAGCGTGGTGCAAAAACCTCCAGCACAAACGTAAAGCCCCAA  
AACGCCACATCAAAGAAAGGGTGGCCCCCAGAGCCAGCTGTGTGACAAGGCAGCTAATTTAATTGAGGAGCTAAC  
ATCCATATTTAAAGCCGCAAAGCCAAGAAACAGAAGCCCAAATGGGGAGTCTCTGTCACCAGACAGTGGGTACCT  
GTCTCCTAAAAATCAGCCGTCAGCCCTGCTGAGTGCCTCAGCCAGCCAGAGCCCTATGGAAGACCAAGGGGAGAT  
GGAAAGAGAGGTCAAGTCCCTGGGGCCAGGCATTGCTACCAGGACAACCAGGACTTGGCAGTGCCACACAACCG  
CAAGTCTCACCCACAGCCCCACAGCGCCCTCCACTTCCAGCTGCACCTCGATTTCATCCAAAAGCTGAGGAGCCA  
AGAAGTAGCAGAAGGGAGCCGAGTTTATCTGGAGTGTAGAGTCACTGGAAACCCCACTCCTCGAGTCAGATGGTT  
CTGTGAAGGGAAAGAACTGCACAACACTCCTGATAATCAAATCCACTGTGAGGGAGGGGACCTCCATACCCTGAT  
CATAGCAGAGGCCCTTTGAGGACGACACAGGTGCTACACCTGTTTGGCTACGAATCCCAGCGGCTCAGACACAAC  
ATCTGCTGAGGTGTTTATTGAAGGTGCCAGTTCAACAGATTCTGACAGTGAAAGTTTAGCTTTCAAATCAAGAGC  
TGGAGCTATGCCACAAGCTCAAAAAGAAAACAATTCTGTTTCTTGACAATAGGATCATCATCTCCAAAGACAGG  
GGTGACCACAGCTGTGATTCAACCACTGTCTGTCCCTGTGCAACAGGTTTACAGTCCAACCTTCATATCTCTGCCG  
ACCTGATGGAACCACTACTGCCTACTTTCTCTGTTTTTACAAAGGAAGTGCAAAACACAGCCGTGGCGGAAGG  
CCAGGTGGTGGTTCTGGAGTGCCGGGTCCGTGGGGCACCCCTCTGCAGGTCCAGTGGTTTCGGCAAGGGAGTGA  
AATCCAAGACTCTCCAGATTTCCGAATTCTACAGAAAAACCTAGATCTACAGCTGAACCTGAGGAGATTTGCAC  
CCTAGTTATCGCTGAGACTTTCCCTGAAGATGCAGGGATCTTTACATGTTTACGAAGAAATGATTATGGATCAGC  
AACCAGCACTGCCCAGCTGGTTGTACCTCAGCCAACACTGAAAAGTGTAGTTACGAGTCAATGGGAGAATCCAA  
CAATGACCACTTCCAACACTTTCCACCTCCCCCTCCAATCTTGGAGACAAGTTCTTGGAGTTGGCTTCAAAGAA  
ACCATCTGAGATCCAGCAGGTGAACAACCCCTGAGTTAGGCCTGAGCAGGGCAGCCCTTCAAATGCAATTCAATGC  
TGCTGAGAGGGAAACGAGCGGAGTCCATCCCAGCCGTGGAGTAAATGGACTGATTAACGGCAAAGCTAACAGTAA  
TAAATCTCTTCCAACACCAGCTGTCTGCTTTACCCACTAAGGAGCCACCACCTCTGCTTGCCAAACCAAACT  
AGGATTTCCAAGAAGGCCAGTAGAACTGCTAGAAATAGCCTCCGATGAGGAAATTCAAGGCACAAAGGATGCTGT  
TATTCAAGACCTGGAACGAAAACCTTCGCTTCAAGGAGGACCTCCTGAACAATGGCCAGCCGAGGTTAACATACGA  
AGAAAGAATGGCTCGTCGACTGCTAGGTGCTGACAGTGCAACTGTCTTTAATATTACAGGAGCCAGAAGAGGAAAC  
AGCTAATCAGGAATACAAAGTCTCCAGCTGTGAACAGAGACTCATCAGTGAAATAGAGTACAGGCTAGAAAGGTC  
TCCTGTGGATGAATCAGGTGATGAAGTTCAGTATGGAGATGTGCCTGTGGAAAATGGAATGGCACCATTTCTTGA  
GATGAAGCTGAAACATTACAAGATCTTTGAGGGAAATGCCAGTAACTTTACATGTAGAGTGGCTGGAAATCCAAA  
GCCAAAGATCTATTGGTTTAAAGATGGGAAGCAGATCTCTCCAAAGAGTGATCACTACACCATTCAAAAGAGATCT  
CGATGGGACCTGCTCCCTCCATACCACAGCCTCCACCCTAGATGATGATGGGAATTATACAATTATGGCTGCAAA  
CCCTCAGGGCCGATCAGTTGTACTGGACGGCTAATGGTACAGGCTGTCAACCAAAGAGGTGCAAGTCCCCGGTC  
TCCCTCAGGCCATCTCATGTGCAAGGCCTCGTTCTAGATCAAGGGACAGTGGAGACGAAAATGAACCAATTCA  
GGAGCGATTCTTCAGACCTCACTTCTTGACGGCTCCTGGAGATCTGACTGTTCAAGAAGGAAAACCTCTGCAGAAAT  
GGACTGCAAAGTCAGTGGGTACCAACCCAGATCTAAGCTGGCAACTAGATGGAAAGCCCGTACGCCCTGACAG  
TGCTCACAAGATGCTGGTGCCTGAGAACGGGGTGCACCTCTGATCATAGAGCCAGTCACGTACGTGATGCCGG  
CATCTACACATGTATAGCTACCAACCGAGCAGGACAGAACTCATTACGCCTGGAGCTTGTGGTTGCTGCTAAAGA  
AGCACACAAACCCCTGTGTTTATTGAGAAGCTCCAAAACACAGGAGTTGCTGATGGGTACCCAGTGGCGCTGGA  
ATGTCGTGTATTGGGAGTGCCACCACCTCAGATATTTTGAAGAAAGAAAATGAATCACTCACTCACAGCACTGA  
CCGAGTGAGCATGCACCAGGACAACCACGGCTACATCTGCCTGCTCATTACAGGGAGCCACAAAAGAAGATGCTGG  
GTGGTATACTGTGTACGCCAAGAATGAAGCAGGGAATTGTGCTGTACTGCCAGGCTGGACGTTTACATTTCTCG  
ACATTAATAGTGAACCACACCAGGAGAACAATAACCAACCCAGTGGCATCAGCAGTCACAGAGCACCAAGCCAA

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**FIGURE 194B**

AAAAAGTACGGCCCTCAGCCAGTCGCTATGCAGCACTTTCGGACCAGGGACTAGACATCAAAGCAGCGTTCCAAC  
CTGAGGCCAACCCATCTCACCTGACACTGAATACTGCCTTGGTAGAAAGTGAGGACCTGTAATCCAGCATTCTTG  
TTAAAGCTGAAACACTGAAACAGCCATTGCCTTGACCAACATATTCCTTTGTCACATTATGTAAAAGGCAGAAAC  
ATACCTTTGACTATAAGAAATTAACAAAAACACCAAAATAATATTTTTCTTACTTGATATACCAAACCTTAGTTT  
AAGTAGATAATGCTAATACAAATATACACATTGTCACAGAAAATACACATTTACTGTCCAATTTAAACCTTTGGAA  
TTGCTGTGATTAAAGTGATCAAAATGCCAAATACTAAAGGAAATCAATTGTTTACAGGTAACCTACAATTTGTAT  
TATCTACAAGTGCCTTTAAACACAAGATATAGGTGCTGTGTAGCCTGATAGTGTGAAATGTTTTAATGAGGGAGTT  
GTACCACAAACAGTACTACAATGATTCTGAAGCACAGTGTATTGAGACAGATACAGTGAACCAAGTGCAATATGT  
AAGGATGAAAGAAGAAGAGATGACAAAGAARTCCAAGTAAATGCCTTGTCTTTGCAAAATGTTTTTATATTAAATC  
ATAAGGAAGGAACTACTTGCCTTAAATGTTAATATCAAAGAGTTTTCTAACAAGGTAAATACCTTAGTTCTTAA  
CATTTTTTTTTCTTTATGTGTAGTGTTTTCATGCTACCTTGGTAGGAACTTATTTACAAACCATATTAAAAGGCT  
AATTTAAATATAAATAATATAAAGTGCTCTGAATAAAGCAGAAATATATTACAGTTCATTCCACAGAAAGCATCC  
AAACCACCCAAATGACCAAGGCATATATAGTATTTGGAGGAATCAGGGGTTTGAAGGAGTAGGGAGGAGAATGA  
AGGAAARTGCAACCAGCATGATTATAGTGTGTTTATTTAGATAAAAGTAGAAGGCACAGGAGAGGTAGCAAAGGC  
CAGGCTTTTCTTTGGTTTTCTTCAAACATAGGTGAAAAAACACTGCCATTCAAGTCAAGGAACCCAGGGCCA  
GCTGGAAGTGTGGAGCACACATGCTGTGGAGCACACATGCTGTGGAGATTGCAGTGTGTCTGAGGTTTGTGTAGT  
AGTGGAAGATTTTAGGTATGTAGAGCAAGTTGAAAATGGATTGAGACTGCATGGTGGCATAAATGAGAAATTGCC  
TGTAGCATCTAGTCTACTTGAAGGAAGTGGAGACATAAGGAGAGACAAAAACAGGTTTGTGCCATAAAGTATTTT  
TTCAAAGACACCAAGATGTGGTAAATGAAAATTATTAGTTCACTTCCCTGCTGCCATGAAACTTTGCCTTAAGAA  
GGTGCTGGATTCCAAGGTTTGTAAAGGCATCTCGGTAAAGACTGCTTTTTGAATGCATATGATTTTGCATCAGCT  
AGACTGAGTTGATTCTGACCAGACTTGATGGTTTTAAGTCGGAACCGATAAATTTTAAAAAGGAGAAAAATAAT  
TTGACCTAGTAGTATAAAACATGAGGCTTTAATGGTACTTTGCTATGAAAAGAAAAACTGTATTCCTTATGCAA  
AACACATGTATCTTTTATTATTTATAAGTGGCCTCTCTTAGCTCAGTTACTCAATTCATACGTAATATTTTTTAA  
AATAATTTTATATCTGTGTACCACCCCATATATTTTCAATTACTGTTTCACATGTACAGCTTTCTACTTCTTTGT  
AAGAACACCAACCAACCAAGGTTTAAAGTGATTAATAGGCTTGAGCACCGGGTGGCAGATGTTCTATGCAGTGTGG  
TTCAAGTTTCTTTGACCGCACTTATATGCATTGCTAGTATGGAATTTAAGATACCATACACAGTCTCTCATGGAC  
CTATCTCTATTGTAGAATTATGACTTATGTCTTACTTGGCAAATTTTTCTGAATGTGACCTTTTTTTGCTGATTT  
GCTGGGTTTGGGATTAAGTAGCATTATTTTGCCACCTTTATATTGTATTTATAAAAAAAGTACTATCAATCAAT  
CATACTACTTTGGATTGTTGTGCTGGTGAATGTGGATTTAACATCAATAAATATTTGACAAATAAAAAA

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**FIGURE 195**

MSGTSSHESFYDSLSDMQEESKNTDFFPGLSAFLSQEEINKSLDLARRAIADSETEDFDSEKEISQIFSTSPASL  
CEHP SHKETKLGEHASRRPQDN RSTPVQPLAEKQTKSISSPVSKRKPAMSPLLTRPSYIRSLRKA EKRGAKTPST  
NVKPKTPHQ RKGGPQS QLCDKAANLIEELTSIFKAAKPRNRSPNGESSSPDSGYLSPKNQPSALLSASASQSPME  
DQGEMEREVKSPGARHCYQDNQDLAVPHNRKSHPPHSA LHFPAPRF IQKLRSQEVAEGSRVYLECRVTGNPTP  
RVRWFCEGKELHNTPD IQIHCEGGDLHTLI IAEAFEDDTGRYTCLATNP SGSDTTSAEVFIEGASSTDSDSES LA  
FKSRAGAMPQAQKTTTSVSLTIGSSSPKTGVTTAVIQPLSVFVQVHSPTS YLCRPDGT TAYFPPVFTKELQNT  
AVAEGQVVVLECRVRGAPPLQVQWFRQGSEIQDSPDFRILQKKPRSTAEPEEICTLVIAETFPEDAGIFTCSARN  
DYGSATSTAQLVVT SANTENCSYESMGESNNDHFQHFP PPPPILETSSLELASKKPSEIQQVNNPELGLSRAALQ  
MQFNAAERETSGVHPSRGVNGLINGKANSNKS LPTPAVLLSPTKEPPPLLAKPKLGFPKKASRTARIASDEEIQG  
TKDAVIQDLERKLRFKEDLLNNGQ PRLTYEERMARRLLGADSATVFNIQEPEEETANQEYKVSSCEQRLISEIEY  
RLERSPVDESGDEVQYGDVPVENGMAPPFFEMKLKHYKIFEGMPVTFTCRVAGNPKPKIYWFKDGKQISPKSDHYT  
IQRDL DGTCSLHTTASTLDDDGNYT IMAANPQGRI SCTGRLMVQAVNQGRSPRSPSGHPHVRRPRSRSRDSGDE  
NEPIQERFFRPHFLQAPGDLTVQEGKLCRMDCKVSGLPTPDL SWQLDGKPV RPDSAHKMLVRENGVHSLIIEPVT  
SRDAGIYT CIATNRAGQNSFSLELVVAAKEAHKPPVFIEKLQNTGVADGYPVRL ECRVLGVPPPQIFWKKENESL  
THSTD RVSMHQDNHGYICLLIQGATKEDAGWYTVSAKNEAGIVSCTARLDVYISRH

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**FIGURE 196**

CCCAGCCGGTCCAGGCCTCTGGCGAACATGGCGCTTGTCCCCTGCCAGGTGCTGCGGATGGCAATCC TGCTGTCC  
TACTGCTCTATCCTGTGTAAC TACAAGGCCATCGAAATGCCCTCACACCAGACCTACGGAGGGAGCTGGAAATTC  
CTGACGTTTCAATTGATCTGGTTATCCAGGCTGTCTTTTTTGGCATCTGTGTGCTGACTGATCTTTCCAGTCTTCTG  
ACTCGAGGAATTGGGAACCAGGAGCAAGAGAGGCAGCTCAAGAAGCTCATCTCTCTCCGGGACTGGATGTTAGCT  
GTGTTGGCCTTTCTGTGTTGGGGTTTTTGTGTAGCAGTGTTCTGGATCATTTATGCCTATGACAGAGAGATGATA  
TACCCGAAGCTGCTGGATAATTTTATCCCAGGGTGGCTGAATCACGGAATGCACACGACGGTTCTGCCCTTTATA  
TTAATCGAGATGAGGACATCGCACCATCAGTATCCCAGCAGGAGCAGCGGACTTACCGCCATATGTACCTTCTCT  
GTTGGCTATATATTATGGGTGTGCTGGGTGCATCATGTAAC TGGCATGTGGGTGTACCCTTTCTGGAACACATT  
GGCCCAGGAGCCAGAATCATCTTCTTTGGGTCTACAACCATCTTAATGAAC TCCCTGTACCTGCTGGGAGAAGTT  
CTGAACAAC TATATCTGGGATACACAGAAAAGTATGGAAGAAGAGAAAGAAAAGCCTAAATTGAATGAGATCCA  
AGTCTAAACGCAAGAGCTAGATTGAGCCGCCATTGAAGACTCCTTCCCCTCGGGCATTGGCAGTGGGGGAGAAAA  
GGCTTCAAAGGAAC TTTGGTGGCATCAGCACCCCCCTCCCCAATGAGGACACCTTTTATATATAAATATGTATAA  
ACATAGAATACAGTTGTTTTCCAAAAGAACTCACCC TCACTGTGTGTTAAAGAATTCTTCCCAAAGTCATTACTGA  
TAATAACATTTTTTCTTTTCTAGTTTTAAAACCAGAATTGGACCTTGGATTTTTATTTTGGCAATTGTAAC TCC  
ATCTAATCAAGAAAGAATAAAAGTTTATTGCACTTCTTTTTGAGAAATATGTTAAAGTCAAAGGGGCATATATAG  
AGTAAGGCTTTTGTGTATTTAATCCTAAAGGTGGCTGTAATCATGAACCTAGGCCACCATGGGGACCTGAGAGGG  
AAGGGGACAGATGTTTCTCATTGCATAATGTCACAGTTGCCTCAAATGAGCACCATTTGTAATAATGATGTCAAT  
TTCATGAAAAGCCTGAGTGTATTGCATCTCTTGATTTAATCATGTGAAACTTTTCTTAGATGCAAATGCTGACTA  
ATAAAGACAAAGCCACCCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 197**

MALVPCQVLRMAILLSYCSILCNYKAIEMPSHQTYGGSWKFLTFIDLVIQAVFFGICVLTDLSSLLTRGIGNQEQ  
ERQLKKLISLRDWMLAVLAFVGVFVAVFWIIYAYDREMIYPKLLDNFIPGWLNHGMHTTVLPFILIEMRITSHH  
QYPSRSSGLTAICTFSVGYYLWVCWVHHVTGMWVYPFLEHIGPGARIIFFGSTTILMNFLYLLGEVLNNYIWDTQ  
KSMEEEKEKPKLE

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**FIGURE 198**

TGCAGTCTGTCTGAGGGCGGCCGAAGTGGCTGGCTCATTTAAGATGAGGCTTCTGCTGCTTCTCCTAGTGGCGGC  
GTCTGCGATGGTCCGGAGCGAGGCCTCGGCCAATCTGGGCGGCGTGCCAGCAAGAGATTAAAGATGCAGTACGCC  
ACGGGGCCGCTGCTCAAGTTCCAGATTTGTGTTTCTGAGGTTATAGGCGGGTGTTTGAGGAGTACATGCGGGTT  
ATTAGCCAGCGGTACCCAGACATCCGCATTGAAGGAGAGAATTACCTCCCTCAACCAATATATAGACACATAGCA  
TCTTTCCTGTCAGTCTTCAAAC TAGTATTAATAGGCTTAATAATTGTTGGCAAGGATCCTTTTGCTTTCTTTGGC  
ATGCAAGCTCCTAGCATCTGGCAGTGGGGCCAAGAAAATAAGGTTTATGCATGTATGATGGTTTTCTTCTTGAGC  
AACATGATTGAGAACCAGTGTATGTCAACAGGTGCATTTGAGATAACTTTAAATGATGTACCTGTGTGGTCTAAG  
CTGGAATCTGGTCACCTTCCATCCATGCAACAACCTTGTTCAAATTCTTGACAATGAAATGAAGCTCAATGTGCAT  
ATGGATTCAATCCCACACCATCGATCATAGCACCACCTATCAGCACTGAAAACCTCTTTTGCAATTAAGGGATCATT  
GCAAGAGCAGCGTGACTGACATTATGAAGGCCTGTACTGAAGACAGCAAGCTGTTAGTACAGACCAGATGCTTTC  
TTGGCAGGCTCGTTGTACCTCTTGGAACCTCAATGCAAGATAGTGTTCAGTGCTGGCATATTTTGGAATTCT  
GCACATTCATGGAGTGCAATAATACTGTATAGCTTTCCCCCACCTCCACAAAATCACCCAGTTAATGTGTGTGT  
GTGTGTTTTTTTTTAAGGTAAACATTACTACTTGTAACCTTTTTTTCTTTAGTCATATTTGAAAAAGTAGAAAATT  
GGAGTTACATTTGGATTTTTTTTCCAA

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**FIGURE 199**

MQYATGPLLKFCICV SXGYRRVFEEYMRVISQRYPDIRIEGENYLPQPIYRHIAFSLSVFKLVLIIGLIIVGKDPF  
AFFGMQAPSIWQWGQENKVIYACMMVFFLSNMIENQCMSTGAFEITLNDVPVWSKLESGHLPSMQQLVQILDNEMK  
LNVHMDSIPHRS



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**FIGURE 200A**

GGCCCGGCTGCGAGGAGGAGGCGGCGGCGCAGGAGGATGTA~~CT~~TTGGTGGCGGGGGACAGGGGGTTGGCCGGC  
TGCGGGCACCTCCTGGTCTCGCTGCTGCTGGGGCTGCTGCTGCTGCTGGCGCGCTCCGGCACCCGGGCGCTGGTCTGC  
CTGCCCTGTGACGAGTCCAAGTGCGAGGAGCCAGGAACCTGCCCCGGGAGCATCGTGAGGGCGTCTGCGGGCTGC  
TGCTACACGTGCGCCAGCCAGAGGAACGAGAGCTGCGGCGGCACCTTCGGGATTTACGGAACCTGCGACCGGGGG  
CTGCGTTGTGTCATCCGCCCCCGCTCAATGGCGACTCCCTCACCGAGTACGAAGCGGGCGTTTGCGAAGATGAG  
AACTGGACTGATGACCAACTGCTTGGTTTTAAACCATGCAATGAAAACCTTATTGCTGGCTGCAATATAATCAAT  
GGGAAATGTGAATGTAACACCATTGCAACCTGCAGCAATCCCTTTGAGTTTCCAAGTCAGGATATGTGCCTTTCA  
GCTTTAAAGAGAATTGAAGAAGAGAAGCCAGATTGCTCCAAGGCCCGCTGTGAAGTCCAGTTCTCTCCACGTTGT  
CCTGAAGATTCTGTTCTGATCGAGGGTTATGCTCCCTCTGGGGAGTGTGTCCCTTACCCAGCCGCTGCGTGTGC  
AACCCCGCAGGCTGTCTGCGCAAAGTCTGCCAGCCGGGAAACCTGAACATACTAGTGTCAAAGCCTCAGGGAAG  
CCGGGAGAGTGCTGTGACCTCTATGAGTGCAAACAGTTTTCGGCGTGGACTGCAGGACTGTGGAATGCCCTCCT  
GTTACAGCAGACCGCGTGTCCCCCGACAGCTATGAACTCAAGTCAGACTAACTGCAGATGGTTGCTGTACTTTG  
CCAACAAGATGCGAGTGTCTCTCTGGCTTATGTGGTTTTCCCGTGTGTGAGGTGGGATCCACTCCCCGCATAGTC  
TCTCGTGGCGATGGGACACCTGGAAAGTGTGTGATGTCTTTGAATGTGTTAATGATACAAAGCCAGCCTGCGTA  
TTTAAACAATGTGGAATATTATGATGGAGACATGTTTCGAATGGACAACCTGTGGTTCTGTGCGATGCCAAGGGGGC  
GTTGCCATCTGCTTCACTGCCAGTGTGGTGAGATAAACTGCGAGAGGTACTACGTGCCCGAAGGAGAGTGTGC  
CCAGTGTGTGAAGATCCAGTGTATCCTTTTAAATAATCCCGTGGCTGCTATGCCAATGGCCTGATCCTTGCCAC  
GGAGACCGGTGGCGGGAAGACGACTGCACATTCTGCCAGTGGCTCAACGGTGAACGCCACTGCGTTGCGACCGTC  
TGCGGACAGACCTGCACAAACCCTGTGAAAGTGCC TGGGGAGTGTGTCCTGTGTGCGAAGAACCAACCATCATC  
ACAGTTGATCCACCTGCATGTGGGGAGTTATCAAACCTGCACTCTGACAGGGAAGGACTGCATTAATGGTTTTCAA  
CGCGATCACAATGGTTGTGCGACCTGTGAGTGATAAACACCGAGGAACCTATGTTTCAAGACGTAACAAGGCTGC  
ACCTTGAAGTGTCCCTTCGGTTTCCTTACTGATGCCAAAACCTGTGAGATCTGTGAGTGCCGCCAAGGCCCAAG  
AAGTGCAGACCCATAATCTGTGACAAGTATTGTCCACTTGGATTGCTGAAGAATAAGCACGGCTGTGACATCTGT  
CGCTGTAAGAAATGTCCAGAGCTCTCATGCAGTAAGATCTGCCCCTTGGGTTTCCAGCAGGACAGTCACGGCTGT  
CTTATCTGCAAGTGCAGAGAGGCCTCTGCTTACGCTGGGCCACCCATCCTGTGCGGGCACTTGTCTACCGTGGAT  
GGTCATCATCATAAAAATGAGGAGAGCTGGCACGATGGGTGCCGGGAATGCTACTGTCTCAATGGACGGGAAATG  
TGTGCCCTGATCACCTGCCCGGTGCTGCTGTGGCAACCCACCATTCACCCTGGACAGTGTGCCCATCATGT  
GCAGATGACTTTGTGGTGCAGAAGCCAGAGCTCAGTACTCCCTCCATTTGCCACGCCCCCTGGAGGAGAATACTTT  
GTGGAAGGAGAAACGTGGAACATTGACTCCTGTACTCAGTGCACCTGCCACAGCGGACGGGTGCTGTGTGAGACA  
GAGGTGTGCCACCGCTGCTCTGCCAGAACCCTCAGCACCCAGGATTCTGTGCCCACAGTGTACAGATCAA  
CCTTTTCGGCCTTCCTTGTCCCGCAATAACAGCGTACCTAATTACTGCAAAAATGATGAAGGGGATATATTCTTG  
GCAGCTGAGTCTTGGAAACCTGACGTTTGTACCAGCTGCATCTGCATTGATAGCGTAATTAGCTGTTTCTCTGAG  
TCCTGCCCTTCTGTATCCTGTGAAAGACCTGTCTTGAGAAAAGGCCAGTGTGTCCCTACTGCATAGAAGACACA  
ATTCCAAAGAAGGTGGTGTGCCACTTCAGTGGGAAGGCCTATGCCGACGAGGAGCGGTGGGACCTTGACAGCTGC  
ACCCACTGCTACTGCCTGCAGGGCCAGACCCTCTGCTCGACCGTCAGCTGCCCCCTCTGCCCTGTGTTGAGCCC  
ATCAACGTGGAAGGAAGTTGCTGCCCAATGTGTCCAGAAATGTATGTCCCAGAACCAACCAATATACCCATTGAG  
AAGACAAACCATCGAGGAGAGGTTGACCTGGAGGT TCCCTGTGGCCCACGCCTAGTGAAAATGATATCGTCCAT  
CTCCCTAGAGATATGGGTACCTCCAGGTAGATTACAGAGATAACAGGCTGCACCAAGTGAAGATTCTTCACTG  
GACTCCATTGCCTCAGTTGTGGTTCCCATATTATATGCCTCTCTATTATAATAGCATTCTTATTCATCAATCAG  
AAGAAACAGTGGATAACCACTGCTTGTGTTGATCGAACCAACTAAGCCTTCTTCTTAAATAATCAGCTAGTA  
TCTGTGGACTGCAAGAAAGGAACAGAGTCCAGGTGGACAGTTCCAGAGAAATGCTAAGAATTGCAGAACCAGAT  
GCAAGATTAGTGGCTTCTACAGCATGCAAAAACAGAACCATCTACAGGCAGACAATTTCTACCAAACAGTGTGA

AGAAAGGCAACTAGGATGAGGTTTCAAAAGACGGAAGACGACTAAATCTGCTCTAAAAAGTAAACTAGAAATTTGT  
GCACTTGCTTAGTGGATTGTATTGGATTGTGACTTGATGTACAGCGCTAAGACCTTACTGGGATGGGCTCTGTCT  
ACAGCAATGTGCAGAACAAAGCATTCCCACTTTTCC TCAAGATAACTGACCAAGTGTTTTCTTAGAACCAAGTTT  
TTAAAGTTGCTAAGATATATTTGCCTGTAAAGATAGCTGTAGAGATATTTGGGGTGGGGACAGTGAGTTTGGATGG  
GGAAATGGGTGGGAGGGTGGTGTGGGAAGAAAAATGGTTCAGCTTGGCTCGGGGAGAAACCTGGTAACATAAAA  
GCAGTTAGTGGCCAGAGGTTATTTTTTTCCTATTGCTCTGAAGACTGCACTGGTTGCTGCAAAGCTCAGGCCT

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**FIGURE 200B**

GAATGAGCAGGAAACAAAAAAGGCCTTGCGACCCAGCTGCCATAACCACCTTAGAACTACCAGACGAGCACATCA  
GAACCCCTTTGACAGCCATCCCAGGTCTAAAGCCACAAGTTTCTTTTCTATACAGTCACAAGTGCAGTAGGCAGTG  
AGGAAGCCAGAGAAATGCGATAGCGGCATTTCTCTAAAGCGGGTTATTAAGGATATATACAGTTACACTTTTTGC  
TGCTTTTATTTTCTTCCAAGCCAATCAATCAGCCAGTTCCTAGCAGAGTCAGCACATGAACAAGATCTAAGTCAT  
TTCTTGATGTGAGCACTGGAGCTTTTTTTTTTTTACAACGTGACAGGAAGAGGAGGGAGAGGGTGACGAACACCA  
GGCATTTCAGGGGCTATATTTCACTGTTTGTTGTTGCTTTGTTCTGTTATATTGTTGGTTGTTTCATAGTTTTTG  
TTGAAGCTCTAGCTTAAGAAGAACTTTTTTTTAAAAAGACTGTTTGGGGATTCTTTTTCTTTATTATATACTGAT  
TCTACAAAATAGAACTACTTCATTTTAATTGTATATTATTCAAGCACCTTGTGGAAGCTCAAAAAAATGATG  
CCTCTTTAACTTTAGCAATTATAGGAGTATTTATGTAACATCTTATGCTTCAAAAAACAAAAGTATTTGTGTG  
CATGTGTATATAATATATATATATACATATATATTTATACACATACAATTTATGTTTTCTGTTGAATGTATTTT  
TATGAGATTTTAAACCAGAACAAAGGCAGATAAACAGGCATTCCATAGCAGTGCTTTTGATCACTTACAAATTTTT  
TGAATAACACAAAATCTCATTCTACCTGCAGTTTAATTGGAAAGATGTGTGTGTGAGAGTATGTATGTGTGTGTG  
TGTGTGTGTGTGTGTGCGCGCGCACGCACGCCTTGAGCAGTCAGCATTGCACCTGCTATGGAGAAGGGTATTCCT  
TTATTAATAATCTTCCTCATTGATTGCTTTTCAGTTGGTTTTTCAATTTGCTCACTGGCCAGAGACATTGATGGC  
AGTTCTTATCTGCATCACTAATCAGCTCCTGGATTTTTTTTTTTTTTTTTTCAAACAATGGTTTGAAACAACACTAC  
TGGAATATTGTCCACAATAAGCTGGAAGTTTGTGTAGTATGCCTCAAATATAACTGACTGTATACTATAGTGGT  
AACTTTTCAAACAGCCCTTAGCACTTTTATACTAATTAACCCATTTGTGCATTGAGTTTTCTTTTAAAAATGCTT  
GTTGTGAAAGACACAGATACCCAGTATGCTTAACGTGAAAAGAAAATGTGTTCTGTTTTGTAAAGGAACTTCAA  
GTATTGTTGTAAATACTTGGACAGAGTTGCTGAACTTTAAAAAAAATTAATTTATTATTATAATGACCTAATTT  
ATTAATCTGAAGATTAACCATTTTTTTGTCTTAGAATATCAAAAAGAAAAAGAAAAAGGTGTTCTAGCTGTTTGC  
ATCAAAGGAAAAAAGATTTATTATCAAGGGGCAATATTTTTATCTTTTCCAAAATAAATTTGTTAATGATACAT  
TACAAAATAGATTGACATCAGCCTGATTAGTATAAATTTGTTGGTAATTAATCCATTCCCTGGCATAAAAAGTC  
TTTATCAAAAAAATTTGTAGATGCTTGCTTTTTTGTTTTTTCAATCATGGCCATATTATGAAAATACTAACAGGAT  
ATAGGACAAGGTGTAAATTTTTTTATTATTATTTTAAAGATATGATTTATCCTGAGTGCTGTATCTATTACTCTT  
TTACTTTGGTTTCTGTTGTGCTCTTGTAAGAAAAATATAATTTCTGAAGAATAAAATAGATATATGGCACTT  
GGAGTGCATCATAGTTCTACAGTTTGTTTTTGTTTTCTTCAAAAAGCTGTAAGAGAATTATCTGCAACTTGATT  
CTTGGCAGGAAATAAACATTTTGAGTTGAAATCAAAAAAAAAAAAAAAAAA

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**FIGURE 201**

MYLVAGDRGLAGCGHLLVSLGLLLLLLARSCTRALVCLPCDESKCEEPRNCPGSIVQGVCGCCYTCASQRNESCG  
GTFGIYGTCDRGLRCVIRPPLNGDSLTEYEAGVCEDENWTDQLLGFKPCNENLIAGCNIINGKCECNTIRTCSN  
PFEFFSQDMCLSAKRIEEKPDCKARCEVQFSPRCPEDSVLIEGYAPPGECCPLPSRCVCNPAGCLRKVCQPG  
NLNILVSKASGKPGECDDLYECKPVFGVDCRTVECPVQQTACPPDSYETQVRLTADGCCTLPTRECLSGLCGF  
PVCEVGSTPRIVSRGDGTPGKCCDVFECDVNDTKPACVFNNVEYYDGMFRMDNCRFCRCQGGVAICFTAQCGEIN  
CERYVPEGECCPVCEDPVYPFNNPAGCYANGLILAHGDRWREDDCTFCQCVNGERHCVATVCGQTCTNPVKVPG  
ECCPVCEPTIITVDPPACGELSNCTLTGKDCINGFKRDHNGCRTCQCINTEELCSERKQGCTLNCPFGFLTDAQ  
NCEICECRPRPKCRPIICDKYCPLGLLKNKHGCDICRCKKPELSCSKICPLGFQQDSHGCLICKCREASASAG  
PPILSGTCLTVDGHHHKNEESWHDGCRECYCLNGREMCALITCPVPACGNPTIHPGQCCPSCADDFVVQKPELST  
PSICHAPGGEYFVEGETWNIDSCTQCTCHSGRVLCETEVCPLLQNPSTQDSCCPQCTDQPFPRPSLSRNNVSP  
NYCKNDEGDIFLAAESWKPDVCTSCICIDSVISCFSESCPSVSCERPVLKRGQCCPYCIEDTIPKKVVCHFSGKA  
YADEERWDLDSCTHCYCLQGQTLCTVSCPPLPCVEPINVEGSCCPMCPEMYVPEPTNPIEKTNHRGEVDLEVP  
LWPTPSENDIVHLPRDMGHLQVDYRDNRLHPSEDSSLDSIASVVVPIIICLSIIIAFLFINQKKQWIPLLCWYRT  
PTKPSSLNNQLVSVDCCKGTRVQVDSSQRLRIAEPDARFSGFYSMQKQNLQADNFYQTV

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**FIGURE 202**

GAGCTGCGAAAGGGCGGGAAAGGCAGTTGGAGAAGAGGTAAGCGGTTACTCACTCCATGGCTGCAGCAAGGAGAG  
GCGGCGGCGGCCTCGGCTGAAGAAAGAAGGTGGGAGCGGAGAGCGCAGGCGTGAAATCTTCCCAAGGCTGCAGAC  
ACCGACGGATTTGCTTTGGGAGCCAGAGTAGCTGCCGCCACCAGAGTCCGGAGCCATGAGCGGGTTTAATTTTGG  
AGGCACTGGGGCCCCACAGGCGGGTTACGTTTTGGCACTGCAAAGACGGCAACAACCACACCTGCTACAGGGTT  
TTCTTTCTCCACCTCTGGCACTGGAGGGTTTAATTTGGGGCTCCCTTCCAACCAGCCACAAGTACCCCTTCCAC  
CGGCCTGTTCTCACTTGCCACCCAGACTCCGGCCACACAGACGACAGGCTTCACTTTTGGAACAGCGACTCTTGC  
TTGGGGGGGAAGTGGATTTCTTTGGGGATCGGTGCTTCAAAGCTCAACTTGAGCAACACAGCTGCCACCCAGC  
CATGGCAAACCCAGCGGCTTTGGGCTGGGCAGCAGCAACCTCACTAATGCCATATCGAGCACCCTCACCTCCAG  
CCAGGGCACAGCACCCACCGGCTTTGTGTTTGGCCCTCCACCACCTCTGTGGCTCCAGCTACCACATCTGGAGG  
CTTCTCATTCACTGGTGGAAGCACGGCCCAACCCTCCGGTTTCAACATTGGCTCAGCAGGGAATTCAGCCCAGCC  
CACGGCACCTGCCACGTTGCCCTTCACTCCGGCCACGCCAGCAGCCACCACAGCAGGTGCCACACAGCCAGCTGC  
TCCACACCCACAGCCACCATCACCAGTACTGGGCCAGCCTCTTTGCGTCAATAGCAACTGCTCCAACCTCATC  
TGCCACCACTGGACTCTCCCTCTGTACCCCTGTGACCACAGCGGGCGCCCCACTGCTGGGACACAGGGCTTCAG  
CTTAAAGGCACCTGGAGCAGCTTCCGGCACCTCCACAACAACATCCACCGCTGCCACCGCCACCGCCACCACCAC  
CACCAGCAGCAGCACCCACCGGCTTTGCCTTGAATTTAAACCAGTGGCGCCAGCCGGGATCCCCAGCAATACAGC  
AGCTGCCGTGACCGCTCCACCTGGCCCTGGCGCAGCTGCAGGGGCGGCTGCCAGCTCCGCCATGACCTACGCGCA  
GCTGGAGAGCCTGATCAACAAATGGAGCCTGGAGCTAGAGGACCAGGAGCGGCACTTCCCTCAGCAGGCCACCCA  
GGTCAACGCCTGGGACCGCACGCTGATCGAGAATGGAGAAAAGATCACCAGCCTGCACCGCGAGGTGGAGAAGGT  
GAAGCTGGACCAGAAGAGGCTGGACCAGGAGCTCGACTTTCATCTGTCCCAGCAGAAGGAGCTGGAAGACCTGCT  
GAGCCCACTGGAGGAGTTGGTCAAGGAGCAGAGCGGGACCATCTACCTGCAGCACGCGGATGAGGAGCGTGAGAA  
AACCTACAAGCTGGCTGAGAACATCGACGCACAGCTCAAGCGCATGGCCCAGGATCTCAAGGACATCATCGAGCA  
CCTGAACACGTCCGGGGCCCCCGCCGACACCAGTGACCCACTGCAGCAGATCTGCAAGATCCTCAATGCGCACAT  
GGACTCACTGCAGTGATCGACCAGAAGTCCGGCCCTGCTGCAGAGGAAGGTGGAGGAGGTGACCAAGGTGTGCGA  
GGGCCGGCGCAAGGAGCAGGAGCGCAGCTTCCGGATCACCTTTGACTAGCGGACAGCAGCCCTGGGGCCCGCAGG  
TCCCTAGGGAGTTTATGAGGGGAATGCGCCCTGTTGCTGTAGTTTGGGGTTGTGGCAAGATACTTGTGTTTGTG  
TTTCTTTCTTTTACATGACTGCCCTTGACATGATCGCTGTGTGCTTTGCGTTTTTCCATTTAGGAGGGTATTCTG  
GGCCTTCTGCCAGGCAGCAGCCTCATGGGTGTGGCTTCTGTGGCTTTCAATTGAGTATCTTTGGCCCTTTTCA  
CCTACTGCGACCAACCCACCTCATCCTGGCTCAGCCTGGTGATGGAGAAGTGCTGATGGTCTTGGTCCCAGCCAGG  
GTCGTGGGGGCAGCCACTCTCTCAAAGCATAGTCAATGGGTGTGATGAAAAAATACCAAATGTAAGAGAACCTCC  
AAGTCAGGGCGCAGTGGCTCACCCCTGTAATCTCAGCACTTTGGGTGGCCAAGGCGGGCAGATGACTTGAGGTCA  
GGAGTTTCGAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGTCAGGTGTGGT  
GGACGCCTGTGATCTCAATCTCAGTACTCGGGAGGCTGAGGCAGGAGAATCACTTGAACCCAGGAGGTGTTGCA  
GTGAACCAAGATCACACCACTGCACTCCAGCCTAGGCAACAGAGACTCTGTCTCAAAAAAAAAAAAAAAAAAAG  
AACTCCCAGGAGACAGCAGCCTAGTTTTCGAGTGTGAGCTTGTGCTTGTGAAAGCTAACCATGCTAACCACCAA  
GGCAAAGCAGCACAGTGTGAATAGAACAGAGCGGGATCAAGAATTTACAGAAGACAGGTGAGTGGGGCCTG  
CACACACAGGGTGTGAGGAACACAGATGGGCGCCGAGAGGCCTGCCTTTTGCCTGGCCCAGGCTCACCCCCAC  
CTTGGGCCTCACCTCCTCTAGGAAGCCTTCCCAGCTACCCGAAGCTCAGGTGGCCTTCTTGCAGGTCCCCGTAGC  
ACCTGAGCCTGTACCTTGGGTGGCACTTGTTATGCTATCCTGTGCTAGCCGTTTGTGCTCGTCTCGCTGTTAG  
ATTGTGAGTTCCCATGGGCAGAGACCCACTGTCGTTCCCGTGTGTCCCCAGCCCGGTCCCTGTCACATTTGTTA  
AATGAAAGAACAATGAAGCCCAGTGTAACGTCAGTCCACAGAAATAGCCACAGCTTCCAGTGGTGGCCGTAGACT  
TGGCTCGGAACCTAGTGGCACCAGAGTAACCTCTAGTCAGTTACAGTAAATCCACTGTGTGTGGAAGGCAGAAGC  
TAGCGGTTGTATCCCAAGCATCTTTTGTATTTGTCTTTATACTTTGCTGAATTTCTTGAAATACCTATTACTGTA  
TGTGGCTTTTCTAAATAAATGTATTGTGAACTAAAAAAAAAAAAAAAAA

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**FIGURE 203**

MSGFNFGGTGAPTGGFTFGTAKTATTTTPATGFSFSTSGTGGFNFGAPFQPATSTPSTGLFSLATQTPATQTTGFT  
FGTATLASGGTGFSLGIGASKLNLNSNTAATPAMANPSGFLGSSNLTNAISSVTSSQGTAPTGFVFGPSTTSVA  
PATTSGGFSFTGGSTAQPSGFNIGSAGNSAQPTAPATLPFTPATPAATTAGATQPAAPTPTATITSTGPSLFI  
ATAPTSSATTGLSLCTPVTTAGAPTAGTQGFSLKAPGAASGTSTTTSTAATATATTTTSSSTTG FALNLKPLAPA  
GIPSNTAAAVTAPPGPGAAAGAAASSAMTYAQLES LINKWSLELEDQERHFLQQATQVNAWDRTLIENGEKITSL  
HREVEKVKLDQKRLDQELDFILSQQKELEDLLSPLEELVKEQSGTIY LQHADEEREKTYKLAENIDAQLKRMAQD  
LKDIIEHLNTSGAPADTSDPLQQICKILNAHMDSLQWIDQNSALLQRKVEEVTKVCEGRRKEQERSFRITFD

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**FIGURE 204**

ACTCCAGATATAGGATCACTCCATGCCATCAAGAAAGTTGATGCTATTGGGCCCATCTCAAGCTGATCTTGGCAC  
CTCTCATGCTCTGCTCTCTTCAACCAGACCTCTACATTCCATTTTGGGAAGAAGACTAAAAATGGTGTGTTCCAATG  
TGGACACTGAAGAGACAAATTCCTTATCCTTTTAAACATAATCCTAATTTCCAAACTCCTTGGGGCTAGATGGTTT  
CCTAAACTCTGCCCTGTGATGTCACTCTGGATGTTCCAAAGAACCATGTGATCGTGGACTGCACAGACAAGCAT  
TTGACAGAAATTCCTGGAGGTATTCCCACGAACACCACGAACCTCACCTCACCATTAAACCACATACCAGACATC  
TCCCCAGCGTCCTTTACAGACTGGACCATCTGGTAGAGATCGATTTTCAAGATGCAACTGTGTACCTATTCCACTG  
GGGTCAAAAAACAACATGTGCATCAAGAGGCTGCAGATTAAACCCAGAAGCTTTAGTGGACTCACTTATTTAAAA  
TCCCTTTACCTGGATGGAAACCAGCTACTAGAGATACCGCAGGGCCTCCCGCCTAGCTTACAGCTTCTCAGCCTT  
GAGGCCAACAACATCTTTTCCATCAGAAAAGAGAACTCTAACAGAACTGGCCAACATAGAAATACTCTACCTGGGC  
CAAACTGTTATTATCGAAATCCTTGTATGTTTCATATTCAATAGAGAAAGATGCCTTCTAAACTTGACAAAG  
TTAAAAGTGCTCTCCCTGAAAGATAACAATGTACAGCCGTCCTACTGTTTTGCCATCTACTTTAACAGAACTA  
TATCTCTACAACAACATGATTGCAAAAATCCAAGAAGATGATTTTAAATAACCTCAACCAATTACAAATCTTGAC  
CTAAGTGGAAATTGCCCTCGTTGTTATAATGCCCCATTTCTTGTGCGCGGTGTAAAAATAATTCTCCCTACAG  
ATCCCTGTAAATGCTTTTGATGCGCTGACAGAATTAAAAGTTTTACGTCTACACAGTAACTCTCTTCAGCATGTG  
CCCCAAGATGGTTTAAAGAACATCAACAACTCCAGGAAGTGGATCTGTCCCAAACTTCTTGGCCAAAGAAATT  
GGGGATGCTAAATTTCTGCATTTTCTCCCCAGCCTCATCCAATTGGATCTGTCTTTCAATTTTGAAGTTTCTGAGT  
TATCGTGCATCTATGAATCTATCACAAGCATTTTCTTCACTGAAAAGCCTGAAAATTCTGCGGATCAGAGGATAT  
GTCTTTAAAGAGTTGAAAAGCTTTAACTCTCGCCATTACATAATCTTCAAAATCTTGAAGTTCTTGATCTTGGC  
ACTAATTTTATAAAAATTGCTAACCTCAGCATGTTTAAACAATTTAAAAGACTGAAAGTCATAGATCTTTCAGTG  
AATAAAATATCACCTTCAGGAGATTCAAGTGAAGTTGGCTTCTGCTCAAATGCCAGAAGTCTGTAGAAAAGTTAT  
GAACCCAGGTCTTGAAACAATTACATTATTTTCAAGATATGATAAGTATGCAAGGAGTTGCAGATTCAAAAACAAA  
GAGGCTTCTTTTATGTCTGTTAATGAAAGCTGCTACAAGTATGGGCAGACCTTGGATCTAAGTAAAAATAGTATA  
TTTTTTGTCAAGTCTCTGATTTTTCAGCATCTTTCTTCTCAAATGCCTGAATCTGTCAGGAAATCTCATTAGC  
CAAATCTTAATGGCAGTGAATTCCAACCTTTAGCAGAGCTGAGATATTTGGACTTCTCCAACAACCGGCTTGAT  
TTACTCCATTCAACAGCATTTTGAAGAGCTTCAAACTGGAAGTTCTGGATATAAGCAGTAATAGCCATTATTTT  
CAATCAGAAGGAATTACTCATATGCTAACTTTACCAAGAACCTAAAGGTTCTGCAGAACTGATGATGAACGAC  
AATGACATCTCTTCTCCACCAGCAGGACCATGGAGAGTGAGTCTCTTAGAACTCTGGAATTCAGAGGAAATCAC  
TTAGATGTTTTATGGAGAGAAGGTGATAACAGATACTTACAATTATTCAAGAATCTGCTAAAATTAGAGGAATTA  
GACATCTCTAAAAATTCCTAAGTTTCTTGCTTCTGGAGTTTTTGATGGTATGCCTCCAAATCTAAAGAATCTC  
TCTTTGGCCAAAAATGGGCTCAAATCTTTCAGTTGGAAGAACTCCAGTGTCTAAAGAACCTGGAAGCTTGGAC  
CTCAGCCACAACCAACTGACCACTGTCCCTGAGAGATTATCCAAGTGTCCAGAAGCCTCAAGAATCTGATTCTT  
AAGAATAATCAAATCAGGAGTCTGACGAAGTATTTCTACAAGATGCCTTCCAGTTGCGATATCTGGATCTCAGC  
TCAAATAAAATCCAGATGATCCAAAAGACCAGCTTCCAGAAAATGTCTCAACAATCTGAAGATGTTGCTTTTG  
CATCATAATCGTTTTCTGTGCACCTGTGATGCTGTGTGGTTTTGTCTGGTGGGTTAACCATACGGAGGTGACTATT  
CCTTACCTGGCCACAGATGTGACTTGTGTGGGGCCAGGAGCACACAAGGGCCAAAGTGTGATCTCCCTGGATCTG  
TACACCTGTGAGTTAGATCTGACTAACCTGATTCTGTTCTCACTTTCCATATCTGTATCTCTTTCTCATGGTG  
ATGATGACAGCAAGTCACCTCTATTTCTGGGATGTGTGGTATATTTACCATTTCTGTAAGGCCAAGATAAAGGGG  
TATCAGCGTCTAATATCACCAGACTGTTGCTATGATGCTTTTATTGTGTATGACACTAAAGACCCAGCTGTGACC  
GAGTGGGTTTTGGCTGAGCTGGTGGCCAACTGGAAGACCCAAGAGAGAAACATTTTAAATTTATGTCTCGAGGAA  
AGGGACTGGTTACCAGGGCAGCCAGTTCTGGAAAACCTTTCCAGAGCATACAGCTTAGCAAAAAGACAGTGTTT  
GTGATGACAGACAAGTATGCAAAGACTGAAAATTTTAAAGATAGCATTTTACTTGTCCCATCAGAGGCTCATGGAT  
GAAAAAGTTGATGTGATTATCTTGATATTTCTTGAGAAGCCCTTTTCAAGTCCAAGTTTCTCCAGCTCCGGAAA  
AGGCTCTGTGGGAGTTCTGTCTTGTAGTGGCCAACAAACCCGCAAGCTCACCCATACTTCTGGCAGTGTCTAAAG  
AACGCCCTGGCCACAGACAATCATGTGGCCTATAGTCAGGTGTTCAAGGAAACGGTCTAGCCCTTCTTTGCAAAA  
CACAATGCCTAGTTTACCAAGGAGAGGCTGGCTGTTTAAATTGTTTTCATATATATCACACCAAAAGCGTGT  
TTGAAATTTCTTCAAGAAATGAGATTGCCCATATTTTCAAGGGAG

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**FIGURE 205**

MVFPMWTLKRQILILFNIILISKLLGARWFPKTLPCDVTLDPKPNHVIVDCTDKHLTEIPGGIPTNTTNLTLTIN  
HIPDISPASFHRLDHLVEIDFRCNCVPIPLGSKNNMCIKRLQIKPRSFSGLTLYKSLYLDGNQLEIPQGLPPSL  
QLLSLEANNIFSIRKENLTELANIEILYLQNCYYRNPCYVSYSIEKDAFLNLTKLVLSLKDNNVTAVPTVLP  
TLTELYLYNNMIAKIQEDDFNNLNQLQILDLSGNCPRCYNAPFPCAPCKNNSPLQIPVNAFDALTELKVLRLHSN  
SLQHVPFRWFKNINKLQELDSLQNFLAKEIGDAKFLHFLPSLIQLDLSFNFELOVYRASMNLSQAFSSSLKSLKIL  
RIRGYVFKELKSFNLSPLHNLQNEVLDLGTNFIKIANLSMFKQFKRLKVIDLSVNKISPSGDSSEVGFCSNART  
SVESYEPQVLEQLHYFRYDKYARSCRFKNKEASFMSVNESCYKYGQTLDSLKNSIFFVKSSDFQHLSFLKCLNLS  
GNLISQTLNGSEFQPLAELRYLDFSNNRLDLLHSTAFEELHKLEVLDISSNSHYFQSEGITHMLNFTKNLKVLOK  
LMMNDNDISSSTSRTMESESLRTEFRGNHLDVLWREGDNRYLQLFKNLLKLEELDISKNLSLFLPSGVFDGMPP  
NLKNLSLAKNGLKSFSWKKLQCLNLETDLSDHNQLTTVPERLSNCSRLKNLILKNNQIRSLTKYFLQDAFQLR  
YLDLSSNKIQMIQKTSFPENVLNNLKMLLLHNRFLCTCDVWVFWVWNHTEVTIPYLATDVTGPGAHKGQSV  
ISLDLYTCELDLTNLILFSLISVSLFLMVMMTASHLYFWDVWYIYHFCKAKIKGYQRLISPDCCYDAFIVYDTK  
DPAVTEWVLAELVAKLEDPREKHFNLCLEERDWLPGQPVLENLSQSIQLSKKTVFVMTDKYAKTENFKIAFYLSH  
QRLMDEKVDVILIFLEKPFQKSKFLQLRKRLCGSSVLEWPTNPQAHFYFWQCLKNALATDNHVAYSQVFKETV

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**FIGURE 206**

GGCACGAGGGTTCCGGTGGGCTCCAGGCGTCGCG**ATCG**AGGAGAGCGGGTACGAGTCGGTGCTCTGTGTCAAGCCT  
GACGTCCACGTCTACCGCATCCCTCCGCGGGCTACCAACCGTGGCTACAGGGCTGCGGAGTGGCAGCTGGACCAG  
CCATCATGGAGTGGCCGGCTGAGGATCACTGCAAAGGGACAGATGGCCTACATCAAGCTGGAGGACAGGACGTCA  
GGGGAGCTCTTTGCTCAGGCCCCGGTGGATCAGTTTCCTGGCACAGCTGTGGAGAGTGTGACGGATTCCAGCAGG  
TACTTCGTGATCCGCATCGAAGATGGAATGGGCGACGGGCGTTTATTGGAATTGGCTTCGGGGACCGAGGTGAT  
GCCTTTGACTTCAATGTTGCATTGCAGGACCATTTCAAGTGGGTGAAACAGCAGTGTGAATTTGCAAAACAAGCC  
CAGAACCCAGACCAAGGCCCTAAACTGGACCTGGGCTTCAAGGAGGGCCAGACCATCAAGCTCAACATCGCAAAC  
ATGAAGAAGAAGGAAGGAGCAGCTGGGAATCCCCGAGTCCGGCCTGCCAGCACAGGAGGGCTGAGCCTGCTTCCC  
CCTCCCCCAGGGGGGAAAACCTCCACCCTGATCCCTCCCCCTGGGGAGCAGTTGGCTGTGGGGGGATCCCTCGTC  
CAGCCAGCAGTTGCTCCCAGTTTCAGGAGGTGCTCCTGTACCCTGGCCACAGCCCAATCCTGCCACTGCTGACATC  
TGGGGAGACTTTACCAAATCTACAGGATCAACTTCCAGCCAGACCCAGCCAGGCACAGGCTGGGTCCAGTTCT**TGA**

CCTGAGCACGGTTTTTCTCATGTGACTTCTGGGAAGGCGCTCCCTCATCTGGGCCAAAGGAAGGAGGACGAAGC  
CCTCCTCAGCTGGCCTGTGTTTGGGGCATGAATCTCTCCTCTCCTCCTGTCTGGCTCTGTTGACAAACCGGGCA  
TGTTTGGCAGTAAATTGGCACCGTGTACACTGTTTCCTGGGATTCAAGTATGCAACCAGAACACAGGAGAAGAA  
AAGCTCCAGGATCCCTGTCCCATCTGTCTCTTGATGTGAGAGAGACTCTGAGACTTCTTCCATCGCAATGACC  
TGATTTAAACACAAGCCCCCAAGCAAAAGAAGAGGTTGAGTTTGCTGCCAGGATTCAGATCAGCCCTTCCCAGG  
GTCTGCAGGTGTCACATGATCACAGTTCAGCGGGAGGCTTTCGTACCCACACTGGCTGTAGCCACTTCAGTCCA  
TCTGCCCTCCAGAGGAGGGGTTTTCTTCTGATTTTTTAGCAGGTTTAGAGGCTGCAGCTTGAGCTACAATCAGGAG  
GGAAATTGGAAGGATTAGCAGCTTTTAAAAATGTTTAAATATTTTGCTTTGCTAATGTGCTGATCCGCACTAACT  
CATCTTTGCAAAAGGAACTGCTCCCTCGGCGTGCCCCAGCTGGGGCCTCTGAAGGGATTCTCACTGTGGGCAGC  
TGCCCTGAGCTTCAGGCAGCAGTGTTCATCTCTGGCCAGTTGTCTGGTTTCCATGTATTCTAGGCCAGGTAGGCA  
ACACAGAGCCAAGGCGGGTGCTGGAAGCCAGACGGAACAGTGTGGGGCAGGAAGGTGGATGCTGTTGTATGGA  
GCTGTGGGAGTTGGCACTCTGTCTGCTGGTGGCCCTCTCGGCTCACATGTTACAGTGCAGCTCCTGGCAGACTT  
GGGTTTTCTCTTTGGTGGTTTTCTAAAGTGCCTTATCTGCAAACTTCTTTTCTCCTTCAGGAAGTGTGAATGG  
CTAGAAGAAGGAGCTCAGTAACTAGAAGTCCAGGGTTGCTTGGTTTACTGGTTTATAAGAAATCTGAAAGCACC  
TCTGACATTCTTTTATTAACCTCACCTCTCAGTTGAAAGATTTCTTCTTTGAAAGGTCAAGACCGTGAAGTAAA  
AAAGTGTGGCCTTTTTGCGGGACCAGATTTTTAAGATAAAATAAATATTTTTACTTCTGTCAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAA



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**FIGURE 207**

MEESGYESVLCVKPDVHVYRIPPRATNRGYRAAEWQLDQPSWSGRLRITAKGQMAYIKLEDRTSGELFAQAPVDQ  
FPGTAVESVTDSSRYFVIRIEDGNRRAFIGIGFGDRGDAFDNFVALQDHFkwvkqqceFAKQAQNPDQGPKLDL  
GFKEGQTIKLNIANMKKKEGAAGNPRVRPASTGGLSLLPPPPGGKTSTLIPPPGEQLAVGGSLVQPAVAPSSGGA  
PVPWPQPNPATADIWGDFTKSTGSTSSQTQPGTGWVQF

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**FIGURE 208**

AGAGAGCTGTTTACTAGGCACGACTGCGAAGGCAAGGGGGCACCAGCTCAGGACTGCATCTGCCTGCCATTTCCC  
TTCCACTCCTCCTTTCTGGAGTCTGACATTAGAAAAGCCAGCGAGAAGGAAGATTCAAACAACCAACCCTGATTTC  
CTGCTTCTCCTTTTCATGAGTGTTCCCTGTGGTCTCTGCACCTCCTTTCTGTCCCCCGGCAGAGGGCAGTAGAGAT  
GGCCGGCCCCAAGGCCTCGGTGGCGCGACCAGCTGCTGTTTCATGAGCATCATAGTCCTCGTGATTGTGGTTCATCTG  
CCTGATGTTATACGCTCTTCTCTGGGAGGCTGGCAACCTCACTGACCTGCCCCAACCTGAGAATCGGCTTCTATAA  
CTTCTGCCTGTGGAATGAGGACACCAGCACCCCTACAGTGTCACCAGTTCCCTGAGCTGGAAGCCCTGGGGGTGCC  
TCGGGTGGGCTGGGCTGGCCAGGCTTGGCGTGTACGGGTCCCTGGTCCCTCACCTCTTTGCCCCCAGCCTCT  
CCTCCTAGCCCAGTGCAACAGTGATGAGAGAGCGTGGCGGCTGGCAGTGCGGCTTCCTGGCTGTGTCTCTGTGCT  
GCTGGCAGGCGGCCTGGGCCTCTTCTCTCCTATGTGTGGAAGTGGGTCAGGCTCTCCCTCCCGGGGCCTGGGTT  
TCTAGCTCTGGGCAGCGCCCAGGCCTTACTCATCCCTTTGCTTATAGCCATGGCTGTGTTCCCTCTGAGGGCTGA  
GAGGGCTGAGAGCAAGCTTGAGAGCTGCTTAAAGGCTTACGTGATTGCAAGGGTTCAGTTCCAACCATAGTCAGAG  
GTGGCACATCTGCTCAGCCATCTCATTTTACAGCTAACGCTGATCTCCAGCTCCAGCGATGGAACCCACTACAGA  
GGAGGTGGGGCCCCCTGTGTCAAAGAGGCCGAGGGGCAGCAAGGGCAGCCAGGGCACCTGTGACTTCTTAGTACAA  
GATTGTCTGTCTTCAGGACTTCCAAGGCTCCCAAAGACTCCCTAAACCATGCAGCTCATTGTCACACCAATTCC  
TGCTTTAATTAATGGATCTGAGCAAATCTTCTCTAGCTTCAGGAGGGTGGGGAGGGAGTGATTGCCGTCTATGGG  
GCCAGACTTCCAGGCTGATTTGCCAAATGCCAAAATGAAACCTAGCAAAGAACTTACGGCAACAAACGAGGACAT  
TAAAAGAGCGAGCACCTCAGTGCTCTCTGGGGACATGGTTAAGGAGCTTCCACTCAGCCCACCATAGTGAGTGGGC  
CGCCATAAGCCATCACTGGAACCTCAACCCAGAGGTCCAGGAGTGATCTCTGAGTGACTCAACAAAGACAGGAC  
ACATGGGGTACAAAGACAAGGCTTGACTGCTTCAAAGCTTCCCTGGACCTGAAGCCAGACAGGGCAGAGGCGTCC  
GCTGACAAATCACTCCCATGATGAGACCCTGGAGGACTCCAAATCTCGCTGTGAACAGGACTGGACGGTTGCGC  
ACAAACAAACGCTGCCACCCTCCACTTCCCAACCCAGAAGCTTGGAAGACATTAGCACAACTTACGCATTGGGGA  
ATTGTGTGTATTTTCTAGCACTTGTGTATTGAAAACCTGTATGGCAGTGATTATTTCATATATTCTGTCCAAA  
GCCCACTGAAAACAGAGGCAGAGACATGT

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**FIGURE 209**

MAGPRPRWRDQLLFMSIIVLVIVVICLMLYALLWEAGNLTDLPNLRIGFYNFCLWNEDTSTLQCHQFPELEALGV  
PRVGLGLARLGVGSLVLTLPAPQPLLLAQCNSEDAWRLAVGFLAVSSVLLAGGLGLFLSYVWKWVRLSLPGPG  
FLALGSAQALLILLIAMAVFPLRAERAESKLESC

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**FIGURE 210**

GCACGAGCGATGTCGCTCGTGCTGCTAAGCCTGGCCGCGCTGTGCAGGAGCGCCGTACCCCGAGAGCCGACCGTT  
CAATGTGGCTCTGAAACTGGGCCATCTCCAGAGTGGATGCTACAACATGATCTAATCCCCGGAGACTTGAGGGAC  
CTCCGAGTAGAACCTGTTACAAC TAGTGTGCAACAGGGGACTATTCAATTTTGATGAATGTAAGCTGGGTACTC  
CGGGCAGATGCCAGCATCCGCTTGTTGAAGGCCACCAAGATTTGTGTGACGGGC AAAAGCAACTTCCAGTCCTAC  
AGCTGTGTGAGGTGCAATTACACAGAGGCCTTCCAGACTCAGACCAGACCCTCTGGTGGTAAATGGACATTTTCC  
TACATCGGCTTCCCTGTAGAGCTGAACACAGTCTATTTTATTGGGGCCCAT AATATTCTAATGCAAATATGAAT  
GAAGATGGCCCTTCCATGTCTGTGAATTTACCTCACCAGGCTGCCTAGACCACATAATGAAATATAAAAAAAG  
TGTGTCAAGGCCGGAAGCCTGTGGGATCCGAACATCACTGCTTGTAAGAAGAATGAGGAGACAGTAGAAGTGAAC  
TTCACAACCACTCCCCCTGGGAAACAGATACATGGCTCTTATCCAACACAGCACTATCATCGGGTTTTCTCAGGTG  
TTTGAGCCACACCAGAAGAAACAAACGCGAGCTTCAGTGGTGATTCCAGTGACTGGGGATAGTGAAGGTGCTACG  
GTGCAGCTGACTCCATATTTTCTACTTGTGGCAGCGACTGCATCCGACATAAAGGAACAGTTGTGCTCTGCCCA  
CAAACAGGCGTCCCTTTCCCTCTGGATAACAACAAAAGCAAGCCGGGAGGCTGGCTGCCTCTCCTCTGCTGTCT  
CTGCTGGTGGCCACATGGGTGCTGGTGGCAGGGATCTATCTAATGTGGAGGCACGAAAGGATCAAGAAGACTTCC  
TTTTCTACCACCACACTACTGCCCCCATTAAGGTTCCTGTGGTTTACCCATCTGAAATATGTTTCCATCACACA  
ATTTGTTACTTCACTGAATTTCTTCAAACCATTCAGAGAAGTGAGGTTCATCCTTGAAAAGTGGCAGAAAAAGAAA  
ATAGCAGAGATGGGTCCAGTGCAGTGGCTTGCCACTCAAAGAAGGCAGCAGACAAAGTCGTCTTCCTTCTTTCC  
AATGACGTCAACAGTGTGTGCGATGGTACCTGTGGCAAGAGCGAGGGCAGTCCCAGTGAGAACTCTCAAGACTCT  
TCCCTTGCCTTTAACCTTTTCTGCAGTGATCTAAGAAGCCAGATTTCATCTGCACAAATACGTGGTGGTCTACTT  
TAGAGAGATTGATACAAAAGACGATTACAATGCTCTCAGTGTCTGCCCCAAGTACCACCTCATGAAGGATGCCAC  
TGCTTTCTGTGCAGAACTTCTCCATGTCAAGTAGCAGGTGTGAGCAGGAAAAAGATCACAAGCCTGCCACGATGG  
CTGCTGCTCCTTGTAGCCCAACCATGAGAAGCAAGAGACCTTAAAGGCTTCCTATCCCACCAATTACAGGGAAAA  
AACGTGTGATGATCCTGAAGCTTACTATGCAGCCTACAAACAGCCTTAGTAATTAAAACATTTTATACCAATAAA  
ATTTTCAAATATTGCTAACTAATGTAGCATTAAC TAACGATTGGAACTACATTTACAACCTCAAAGCTGTTTTA  
TACATAGAAATCAATTACAGTTTTTAATTGAAAAC TATAACCATTTTGATAATGCAACAATAAAGCATCTTCAGCC  
AAAAAAAAAAAAAAAA

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**FIGURE 211**

MSLVLLSLAALCRSAVPREPTVQCGSETGPSPEWMLQHDLPDGLRDLRVEPVTTSVATGDYSILMNVSQVLRAD  
ASIRLLKATKICVTGKSNFQSYSCVRCNYTEAFQTQTRPSGGKWTF SYIGFPVELNTVYFIGAHNIPNANMNEDG  
PSMSVNFTSPGCLDHIMKYKKKCVKAGSLWDPNITACKKNEETVEVNFTTTPLGNRYMALIQHSTIIGFSQVFEP  
HQKKQTRASVVIPVTGDSEGATVQLTPYFPTCGSDCIRHKGTVVLCPTGVPFPLDNNKSKPGGWLPLLLLSLLV  
ATWVLVAGIYLMWRHERIKKTSFSTTTLLPPIKVLVVYPSEICFHHTICYFTEFLQNHCRSEVILEKWQKKKIAE  
MGPVQWLATQKKAADKVVFLSNDVNSVCDGTCGKSEGSPSENSQDSSPCL

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**FIGURE 212**

GCACGAGTTGGGAGGTGTAGCGCGGCTCTGAACGCGCTGAGGGCCGTTGAGTGTGCGAGGCGGCGAGGGCGCGAG  
TGAGGAGCAGACCCAGGCATCGCGCGCCGAGAAGGCCGGGCGTCCCCACACTGAAGGTCCGGAAAGGCGACTTCC  
GGGGGCTTTGGCACCTGGCGGACCCTCCCGGAGCGTCGGCACCTGAACGCGAGGCGCTCCATTGCGCGTGC GCGT  
TGAGGGGCTTCCCGCACCTGATCGCGAGACCCCAACGGCTGGTGGCGTCGCCTGCGCGTCTCGGCTGAGCTGGCC  
ATGGCGCAGCTGTGCGGGCTGAGGCGGAGCCGGGCGTTTCTCGCCCTGCTGGGATCGCTGCTCCTCTCTGGGGTC  
CTGGCGGCCGACCGAGAACGCAGCATCCACGACTTCTGCCTGGTGTGCAAGGTGGTGGGCAGATGCCGGGCCTCC  
ATGCCTAGGTGGTGGTACAATGTCACTGACGGATCCTGCCAGCTGTTTGTGTATGGGGGCTGTGACGGAAACAGC  
AATAATTACCTGACCAAGGAGGAGTGCCTCAAGAAATGTGCCACTGTACAGAGAATGCCACGGGTGACCTGGCC  
ACCAGCAGGAATGCAGCGGATTCTCTGTCCCAAGTGCTCCCAGAAGGCAGGATTCTGAAGACCACTCCAGCGAT  
ATGTTCAACTATGAAGAATACTGCACCGCCAACGCAGTCACTGGGCCTTGCCGTGCATCCTTCCCACGCTGGTAC  
TTTGACGTGGAGAGGAACCTCTGCAATAACTTCATCTATGGAGGCTGCCGGGGCAATAAGAACAGCTACCGCTCT  
GAGGAGGCCCTGCATGCTCCGCTGCTTCCGCCAGCAGGAGAATCCTCCCCTGCCCTTGGCTCAAAGGTGGTGGTT  
CTGGCGGGGCTGTTCTGTATGGTGTGATCCTCTTCTGGGAGCCTCCATGGTCTACCTGATCCGGGTGGCACGG  
AGGAACCAGGAGCGTGCCCTGCGCACCGTCTGGAGCTCCGGAGATGACAAGGAGCAGCTGGTGAAGAACACATAT  
GTCTGTTGACCGCCCTGTGCGCAAGAGGACTGGGGAAGGGAGGGGAGACTATGTGTGAGCTTTTTTTAAATAGAG  
GGATTGACTCGGATTTGAGTGATCATTAGGGCTGAGGTCTGTTTCTCTGGGAGGTAGGACGGCTGCTTCTGGTC  
TGGCAGGGATGGGTTTGCTTTGGAAATCCTCTAGGAGGCTCCTCCTCGCATGGCCTGCAGTCTGGCAGCAGCCCC  
GAGTTGTTTCCTCGCTGATCGATTTCTTTCTCCAGGTAGAGTTTCTTTGCTTATGTTGAATTCCATTGCCTCC  
TTTTCTCXATCACAGAAGTGATGTTGGAATCGTTTCTTTGTTTGTCTGATTTATGGTTTTTTTAAAGTATAAACA  
AAAGTTTTTTATTAGCATTCTGAAAGAAGGAAAGTAAAATGTACAAGTTTAATAAAAAGGGGCCTTCCCCTTTAG  
AATAAATTTCCAGCATGTTGCTTTCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 213**

MAQLCGLRRSRAFLALLGSLLLSGVLAADRERSIHDFCLVSKVVGRCRASMPRWWYNVTDGSCQLFVYGGCDGNS  
NNYLTKEECLKKCATVTENATGDLATSRNAADSSVPSAPRRQDSEDHSSDMFNYYEYCTANAVTGPCRASFP  
FDVERNSCNNFIYGGCRGNKNSYRSEEACMLRCFRQQENPPLPLGSKVVVLAGLFVMVLILFLGASMVYLIRVAR  
RNQERALRTVWSSGDDKEQLVKNTYVL

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**FIGURE 214**

CCGAGCGCCAGCGCGGGGAACCGGGAAAAGGAAACCGTGTGTGTACGTAAGATTCAGGAAACGAAACCAGGAGC  
CGCGGGTGTTGGCGCAAAGGTTACTCCCAGACCCTTTCCGGCTGACTTCTGAGAAGGTTGCGCACAGCTGTGCC  
CGGCAGTCTAGAGGCGCAGAAGAGGAAGCCATCGCCTGGCCCCGGCTCTCTGGACCTTGTCTCGCTCGGGAGCGG  
AAACAGCGGCAGCCAGAGAACTGTTTTAATCATGGACAAACAAAACCTCACAGATGAATGCTTCTCACCCGGAAAC  
AAACTTGCCAGTTGGGTATCCTCCTCAGTATCCACCGACAGCATTCCAAGGACCTCCAGGATATAGTGGCTACCC  
TGGGCCCCAGGTCAGCTACCCACCCCCACCAGCCGGCCATTTCAGGTCTTGGCCCAGCTGGCTTTTCTGTCCCAA  
TCAGCCAGTGTATAATCAGCCAGTATATAATCAGCCAGTTGGAGCTGCAGGGGTACCATGGATGCCAGCGCCACA  
GCCCTCCATTAACTGTCCACCTGGATTAGAATATTTAAGTCAGATAGATCAGATACTGATTTCATCAGCAAATTGA  
ACTTCTGGAAGTTTTAACAGGTTTTGAACTAATAACAAATATGAAATTAAGAACAGCTTTGGACAGAGGGTTTA  
CTTTGCAGCGGAAGATACTGATTGCTGTACCCGAAATTGCTGTGGGCCATCTAGACCTTTTACCTTGAGGATTAT  
TGATAATATGGGTCAAGAAGTCATAACTCTGGAGAGACCACTAAGATGTAGCAGCTGTTGTTGTCCCTGCTGCCT  
TCAGGAGATAGAAATCCAAGCTCCTCCTGGTGTACCAATAGGTTATGTTATTCAGACTTGGCACCCATGTCTACC  
AAAGTTTACAATTCAAATGAGAAAAGAGAGGATGTACTAAAAATAAGTGGTCCATGTGTTGTGTGCAGCTGTTG  
TGGAGATGTTGATTTTGAGATTAAATCTCTTGATGAACAGTGTGTGGTTGGCAAATTTCCAAGCACTGGACTGG  
AATTTTGAGAGAGGCATTTACAGACGCTGATAACTTTGGAATCCAGTTCCTTTAGACCTTGATGTTAAATGAA  
AGCTGTAATGATTGGTGCCTGTTTCCTCATTGACTTCATGTTTTTTGAAAGCACTGGCAGCCAGGAACAAAAATC  
AGGAGTGTGGTTAGTGGATTAGTGAAAGTCTCCTCAGGAAATCTGAAGTCTGTATATTGATTGAGACTATCTAAAC  
TCATACCTGTATGAATTAAGCTGTAAGGCCTGTAGCTCTGGTTGTATACTTTTGCTTTTCAAATTATAGTTTATC  
TTCTGTATAACTGATTTATAAAGGTTTTTGACATTTTTTAATACTCATTGTCAATTTGAGAAAAAGGACATATG  
AGTTTTTGCATTTATTAATGAACTTCCTTTGAAAACTGCTTTGAATTATGATCTCTGATTTCATTGTCCATTTT  
ACTACCAAATATTAATAAGGCCTTATTAATTTTTATATAAATTATATCTTGTCTTATTAATCTAGTTACAATT  
TATTTTCATGCATAAGAGCTAATGTTATTTTGCAAATGCCATATATTCAAAAAAGCTCAAAGATAATTTTCTTTAC  
TATTATGTTCAAATAATATTCAATATGCATATTATCTTTAAAAAGTTAAATGTTTTTTTTAATCTTCAAGAAATCA  
TGCTACACTTAACTTCTCCTAGAAGCTAATCTATAACCATAATATTTTCATATTCACAAGATATTAAATTACCAAT  
TTTCAAATTATTGTTAGTAAAGAACAAAATGATTCTCTCCCAAAGAAAGACACATTTTAAATACCTTCACTCT  
AAAACCTCTGGTATTATAACTTTTGAAAGTTAATATTTCTACATGAAATGTTTAGCTCTTACACTCTATCCTTCCT  
AGAAAAATGGTAATTGAGATTACTCAGATATTAATTAATAACAATATCATATATATATTCACAGAGTATAAACCTA  
AATAATGATCTATTAGATTCAAATATTTGAAATAAAAACCTTGATTTTTTTGT



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**FIGURE 215**

MDKQNSQMNASHPETNLPVGYPPOYPPTAFQGGPGYSGYPGPQVSYP PPPAGHSGPGPAGFPV PNQPVYNQPVYN  
QPVGAAGVPWMPAPQPPLNCPGLEYSQIDQILIHQQIELLEVLTGFETNNKYEIKNSFGQRVYFAAEDTDCCT  
RNCCGPSRPFTLRIIDNMGQEVITLERPLRCSSCCCPCLQEIEIQAPPGVPIGYVIQTWHPCLPKFTIQNEKRE  
DVLKISGPCVVCSCCGDVDFEIKSLDEQCVVGKISKHWTGILREAFTDADNFGIQFPLDL DVKMKAVMIGACFLI  
DFMFFESTGSQEQKSGVW

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**FIGURE 216A**

AGAGCTTCAGTCTGAGTCCCAGCGCCGAGAGCGTGTCTGACCGGTTGGACCCCTACAGCAGCGGCGGGCGGCTCCT  
CGTCGTCGTCGGAAGAGCTCGAGGCCGACGCAGCCTCGGCCCGACGGGGGTCCCGGGCCAGCCCCGCCGTCCCG  
GCCACCCCGCGCAGCCCCCTCCCGCTTCCCAGACGGCTTCTCGCCTCAGCCGCAGCAGAAAGCCCCGAGGGCCA  
TTGACAGCCCGGGCGGGGCCGTCCGCGAGGGGTCTGTGCGAGGAGAAGGCAGCGGCAGCCGTGGCCCCGGGAGGCC  
TCCAGTCTACCCCCGGGAGGAGCGGGGTGACCGCGGAGAAGGCAGCCTCCGCCGCCCCCGCCGCCACCCTGTACG  
TGCAGCTCCACGGAGAGACCACCCGGCGCTTGGAGGCGGAGGAGAAGCCATTGCAGATCCAAAATGACTACCTCT  
TCCAACTGGGATTTGGGGAGCTGTGGAGGTTGCAGGAGGAAGGCATGGACTCGGAGATTGGCTGCCTCATCCGCT  
TCTATGCAGGAAAACCTCACAGCACGGGTAGCTCTGAACGGATTTCAGCTCTCAGGAATGTATAATGTCCGTAAAG  
GCAAGATGCAGTTGCCAGTGAACCGATGGACAAGACGCCAAGTCATCCTATGTGGGACCTGCCTGATAGTATCAT  
CTGTGAAAGACAGCTTGACCGGAAAGATGCATGTTCTGCCACTAATTGGTGGAAAAGTAGAAGAAGTGAAAAAGC  
ACCAACACTGTTTAGCATTAGCTCCTCTGGACCCCAAAGCCAGACTTACTACATTTGCTTTGATACTTTCACAG  
AATACTTAAGGTGGCTGCGACAAGTCTCCAAGTTGCATCCCAGCGCATTAGCTCAGTGGACCTCTCGTGTGTGA  
GCCTGGAACATCTGCCTGCCAACCTCTTCTACAGCCAAGACCTCACTCATCTCAATTTAAAAACAAAACCTTCCTAA  
GGCAGAACCCTAGCCTTCCAGCTGCCAGGGGGCTTAATGAACTGCAAAGGTTACCAAGTTGAAGAGTCTTAACC  
TTTCCAATAATCATTTAGGGGACTTCCCTCTGGCAGTCTGCAGTATTCCAACCCTGGCAGAGCTGAACGTGTCTCT  
GCAATGCCCTGCGATCAGTCCCGGCAGCCGTTGGAGTGATGCACAACCTACAGACATTTTTGTTGGATGGAACT  
TTCTCCAATCCCTTCTCTGCTGAGTTGGAGAACATGAAGCAGCTTAGTTATCTGGGTCTTTCTTTCAATGAATTTA  
CTGACATTCCCGAAGTATTGGAGAAATTGACTGCTGTGGATAAACTTTGTATGTCTGGAACTGTGTGGAGACCC  
TTAGGCTACAGGCTTTAAGAAAAATGCCTCACATTAAACATGTGGATCTAAGGTTGAACGTAATTAGGAAGCTGA  
TAGCAGATGAAGTGGACTTTCTACAGCATGTTACTCAGCTTGACCTACGAGACAATAAGCTTGGTGATCTAGATG  
CTATGATTTTCAACAACATTGAAGTTTACACTGTGAAAGGAATCAACTGGTCACATTAGACATCTGTGGCTATT  
TCCTAAAAGCGCTCTATGCCTCTTCTAATGAACTTGTTCAACTTGATGTTTACCCAGTTCCAAATTATCTGTCCT  
ACATGGATGTTTCAAGGAACCGCTTAGAAAATGTGCCTGAGTGGGTATGTGAAAGCCGAAAGCTAGAAGTTTGG  
ATATTGGCCATAATCAAATATGTGAACTTCTGCCCCTTATTTTGTAAATAGCAGTCTCCGGAACCTACTGGCAG  
GACACAACCAGTTGGCAAGGCTGCCTGAAAGGCTAGAAAGAACCTCGGTGGAGGTCTTGGATGTGCAACACAACC  
AGCTCCTTGAGCTCCACCTAACCTTCTGATGAAGGCTGACAGCCTGAGATTCTGAACGCCTCTGCGAACAAAC  
TGGAAGCCCTTCTCCAGCCACGCTTTCGGAAGAGACAAACAGTATCTTACAAGAGTTGTATTTGACAAATAACA  
GCCTCACAGACAAATGTGTGCCCTTGTTAACGGGACACCCCATTTGAAGATCCTTCACATGGCCTATAACCGAC  
TTCAGAGTTTTCCAGCAAGTAAATGGCGAACTGGAGGAACCTGAAGAAATTGATCTCAGTGGGAATAAGCTGA  
AAGCCATCCCAACAACGATCATGAATTGCAGCCGCATGCACACCGTGATTGCTCACTCCAACCTGCATCGAGGTCT  
TTCCCGAAGTTATGCAGCTCCCAGAGATCAAGTGTGTGGACCTGAGCTGTAATGAGCTAAGTGAAGTCACATTAC  
CAGAAAACCTGCCTCCCAAACCTGCAGGAGCTAGACCTGACTGGAAACCCGCGCCTTGTCTTGTATCAGAAAACCC  
TGGAACCTACTGAATAATATCCGCTGTTTCAAGATTGATCAGCCTTCTACAGGAGACGCTTCCGGAGCCCCAGCTG  
TATGGAGTCATGGTTACACTGAAGCTTCGGGGGTAAAAACAAGTTGTGTGTGTCGAGCCCTGTGGTGAATAACT  
TCTGTGACAACCGGAAGCCCTGTATGGTGTGTTGACGGAGACCGGAATGTGGAGGTGCCCTACCTTCTCCAGT  
GCACTATGAGTGACATTTTGGCTGAAGAGCTGCAAAAAACAAAAACGAAGAAGAATACATGGTCAATACATTCA  
TTGTCATGCAAAGGAACTTGGAAGTGTGGGCAGAAGCTTGGTGGTGCCGCTGTCTTTGTCTATATCAAGCATG  
ACCCTGTGGATCCAGGAGGATCCTTACCTTGACCTCTGCTAATGTGGGAAGTGCCAAACAGTTCTCTGTGCA  
ATGGAAGCCGCTGCCTCTGTCCAGATCTTACATCATGAGCTGTGAAGAAGAGCTGAAGAGGATTAAACAGCACA  
AGGCCATTATCACTGAGGATGGCAAGGTGAACGGAGTGACTGAGTCCACGCGCATCCTGGGCTACACCTTCTCC  
ATCCAGTGTGGTGCTCGCCCCACGTGCAGTCCGTGCTCCTGACTCCCCAGGATGAGTTCTTTCATCCTAGGCA  
GTAAGGGGTTGTGGGACAGCCTGTCCGTGAGGAGGCCGTGGAAGCCGTGCGCAACGTGCCCCGATGCCCTGGCTG  
CTGCCAAGAAGCTGTGTACCCTGGCCCAGAGCTACGGCTGCCACGACAGCATCAGCGCTGTGGTGGTGCAGCTCA  
GTGTCACTGAGGACAGCTTCTGTGTGCTGCGAGCTCAGCGCCGTTGGGGCTGTGCCACCACCCAGTCTTGGCATCT  
TTCCTCCCTCAGTGAACATGGTGATCAAGGATCGGCCCTCAGATGGGCTGGGCGTGCCGTCTCCAGCAGCGGCA  
TGGCTTCCGAGATTAGCAGTGAGCTCTCCACTTCTGAGATGAGCAGCGAGGTGGGGTCAACAGCCTCCGATGAGC  
CCCCGCCCCGAGCCCTAAGCGAGAACAGCCCTGCC TACCCAGTGAGCAGCGCTGCATGCTCCACCCCATCTGTC  
TGTTCAACTCCTTCCAGCGCCAGCTATCCAGCGCCACGTCTCTAGCGCCTTCTCCGACAACGGCCTTGACAGTG

**FIGURE 216B**

[illegible]

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**FIGURE 217**

ERNQLVTLDICGYFLKALYASSNELVQLDVYPVPNYLSYMDVSRNRLENVPEWVCESRKLEVLDIGHNQICELPA  
RLFCNSSLRKLLAGHNQLARLPERLERTSVEVLVDVQHNQLLELPPNLLMKADSLRFLNASANKLESPPATLSEE  
TNSILQEELYLTNNSLTDKCVPLLTGHPHLKILHMAYNRLQSFPASKMAKLEEEIDLSGNKLKAIPPTIMNCRR  
MHTVIAHSNCIEVFPEVMQLPEIKCVDLSCNELSEVTLPENLPPKLQELDTGNPRLVLDHKTLELLNNIRCFKI  
DQPSTGDASGAPAVWSHGYTEASGVKNKLCVAALSVNNFCDNREALYGVFDGDRNVEVPYLLQCTMSDILAEELQ  
KTKNEEEYMVNTFIVMQRKLGTAGQKLGGAAVLCHIKHDPVDPGGSFTLTSANVGKCQTVLCRNGKPLPLSRSYI  
MSCEEEELKRIKQHKAIITEDGKVNGVTESTRILGYTFLHPSVVPRPHVQSVLLTPQDEFFILGSKGLWDSLSVEE  
AVEAVRNVPDALAAAKKLCTLAQSYGCHDSISAVVVQLSVTEDSFCCCELSAGGAVPPPSPGIFPPSVNMVIKDR  
PSDGLGVPSSSSGMASEISSELSTSEMSSEVGSTASDEPPPGALSSENSPAYPSEQRCMLHPICLSNSFQRLSSA  
TFSSAFSDNGLDSDDEEPIEGVFTNGSRVEVEVDIHCSRakeKEKQQHLLQVPAEASDEGIVISANEDEPGLPRK  
ADFSAVGTIGRRRANGSVAPQERSHNVIEVATDAPLRKPGGYFAAPAQPDPDQFIIPPELEEEVKEIMKHHQEQ  
QQQQQPPPPPQLQPQLPRHYQLDQLPDYYDTPL

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**FIGURE 218**

AGCGGCCGGGGCCACGATGGAGCGCGACGGCTGCGCGGGGGGCGGGAGCCGCGGCGGCGAGGGCGGGCGCGCTCC  
CCGGGAGGGCCCGGCGGGGAACGGCCGCGATCGGGGCCGAGCCACGCTGCCGAGGCGCCCGGGGACCCGCAGGC  
GGCCGCGTCTTGTGCTGGCCCTATGGACGTGGGGGAGGAGCCGCTGGAGAAGGCGGCGCGCGCCCGCACTGCCAA  
GGACCCCAACACCTATAAAGTACTCTCGCTGGTATTGTTCAGTATGTGTGTTAACAACAATACTTGGTTGTATATT  
TGGGTTGAAACCAAGCTGTGCCAAAGAAGTTAAAAGTTGCAAAGGTCGCTGTTTCGAGAGAACATTTGGGAAGT  
TCGCTGTGATGCTGCCTGTGTTGAGCTTGGAACTGCTGTTTAGATTACCAGGAGACGTGCATAGAACCAACA  
TATATGGACTTGCAACAAATTCAGGTGTGGTGAGAAAAGGTTGACCAGAAGCCTCTGTGCCTGTTTCAAGTACTG  
CAAGGACAAGGGCGACTGCTGCATCAACTACAGTTCTGTGTGTCAAGGTGAGAAAAGTTGGGTAGAAGAACCATG  
TGAGAGCATTAAATGAGCCACAGTGCCGAGCAGGTTTGAACGCCTCCTACCCTCTTATTTCTTTGGATGGATT  
CAGGGCAGAATATTTACACACTTGGGGTGGACTTCTTCTGTTATTAGCAAATAAAAAATGTGGAACATATAC  
TAAAAACATGAGACCGGTATATCCAACAAAACTTTCCCAATCACTACAGCATTGTCACCGGATTGTATCCAGA  
ATCTCATGGCATAATCGACAATAAAATGTATGATCCCAAATGAATGCTTCTTTTCACTTAAAAGTAAAGAGAA  
ATTTAATCCTGAGTGGTACAAAGGAGAACCAATTTGGGTACAGCTAAGTATCAAGGCCTCAAGTCTGGCACATT  
TTTCTGGCCAGGATCAGATGTGGAATTAACGGAAATTTCCAGACATCTATAAAATGTATAATGGTTTCACTACC  
ATTTGAAGAAAGGATTTTAGCTGTTCTTCACTGGCTACAGCTTCTTAAAGATGAAAGACCACACTTTTACACTCT  
GTATTTAGAAGAACCAGATTCTTCAAGTTCATATGGACCAGTCAGCAGTGAAGTCATCAAAGCCTTGACAGAG  
GGTTGATGGTATGGTTGGTATGCTGATGGATGGTCTGAAAGAGCTGAACCTGCACAGATGCCTGAACCTCATCCT  
TATTTCAAGTATGTCATGGAACAAGGCAGTTGTAAGAAATACATATATCTGAATAAAATATTTGGGGGATGTTAA  
AAATATTAAGTTATCTATGGACCTGCAGCTCGATTGAGACCCTCTGATGTCCAGATAAAATACTATTCTTTAA  
CTATGAAGGCATTGCCCCGAAATCTTTCTTGGCCGGGAACCAACCAGCACTTCAAACCTTACCTGAAACATTTCTT  
ACCTAAGCGTTTGCACCTTGTCTAAGAGTGATAGAATTGAGCCCTTGACATTCTATTTGGACCCTCAGTGGCAACT  
TGCATTGAATCCCTCAGAAAGGAAATATTGTGGAAGTGGATTTCATGGCTCTGACAATGTATTTCAAATATGCA  
AGCCCTCTTTGTTGGCTATGGACCTGGATTCAAGCATGGCATTGAGGCTGACACCTTTGAAAACATTGAAGTCTA  
TAACCTAATGTGTGATTTACTGAATTTGACACCGGCTCCTAATAACGGAACCTCATGGAAGTCTTAACCACCTTCT  
AAAGAATCCTGTTTATACGCCAAAGCATCCCAAAGAAGTGACCCCTGGTACAGTGCCCTTCAACAAGAACCC  
CAGAGATAACCTTGGCTGCTCATGTAACCCCTTCGATTTTGCCGATTGAGGATTTTCAAACACAGTTCAATCTGAC  
TGTGGCAGAAGAGAAGATTATTAAGCATGAACTTTACCCTATGGAAGACCTAGAGTCTCCAGAAGGAAAACAC  
CATCTGTCTTCTTTCCAGCACCAAGTTTATGAGTGGATACAGCCAAGACATCTTAATGCCCCCTTGGACATCCTA  
TACCGTGGACAGAAATGACAGTTTCTCTACGGAAGACTTCTCCAAGTGTCTGTACCAGGACTTTAGAATTCCTCT  
TAGTCTGTCCATAAATGTTTCAATTTTATAAAAAAATACACCAAAGTGAGTTACGGGTTCTCTCCCCACCACAACT  
AAATAAAAAATTCAAGTGAATATATTCTGAAGCTTTGCTTACTACAAATATAGTGCCAATGTACCAGAGTTTTCA  
AGTTATATGGCGCTACTTTTATGACACCCTACTGCGAAAGTATGCTGAAGAAAGAAATGGTGTCAATGTGCTCAG  
TGGTCTGTGTTTGACTTTGATTATGATGGACGTTGTGATTCTTAGAGAATCTGAGGCAAAAAGAGAGTCAT  
CCGTAACCAAGAAATTTTGATTCCAACCTCACTTCTTTATTGTGCTAACAAGCTGTAAAGATACATCTCAGACGCC  
TTTGCACCTGTGAAAACCTAGACACCTTAGCTTTCAATTTGCTCACAGGACTGATAACAGCGAGAGCTGTGTGCA  
TGGGAAGCATGACTCCTCATGGGTGGAAGAATTGTTAATGTTACACAGAGCACGGATCACAGATGTTGAGCACAT  
CACTGGACTCAGCTTCTATCAACAAAGAAAAGAGCCAGTTTCAGACATTTTAAAGTTGAAAACACATTTGCCAAC  
CTTTAGCCAAGAAGACTGATATGTTTTTATCCCCAAACACCATGAATCTTTTGAGAGAACCTTATATTTTATA  
TAGTCTCTAGCTACACTATTGCATTGTTTCAAGAACTGTGACAGAGTTAGAACGGAGCCCTCGGTGATGCGGA  
CATCTCAGGGAACTTGCGTACTCAGCACAGCAGTGGAGAGTGTTCTGTTGAATCTTGCACATATTTGAATGTG  
TAAGCATTGTATACATTGATCAAGTTCGGGGGAATAAAGACAGACCACACCTAAAACCTGCCTTTCTGCTTCTCTT  
AAAGGAGAAGTAGCTGTGAACATTGTCTGGATACCAGATATTTGAATCTTTCTTACTATTGGTAATAAACCTTGA  
TGGCATTGGGCAACAGTAGACTTATAGTAGGGTTGGGGTAGCCCATGTTATGTGACTATCTTTATGAGAATTTT  
AAAGTGGTTCTGGATATCTTTTAACTTGGAGTTTCAATTTCTTTTCAATTGTAATCAAAAAAAAATTAACAGAAGC  
CAAAATACTTCTGAGACCTTGTTCATCTTTGCTGTATATCCCTCAAATCCAAGTTATTAATCTTATGTGTT  
TTCTTTTAAATTTTTTGATTGGATTTCTTTAGATTAAATGTTCAAATGAGTTCAACTTTGAGGGACGATCTTTG  
AATATACTTACCTATTATAAAATCTTACTTTGTATTGTATT

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**FIGURE 219**

MDVGEEPLEKAARARTAKDPNTYKVLSSLVLSVCVLTTILGCIFGLKPSCAKEVKSCKGRCFERTFGNCRCDAAACV  
ELGNCCLDYQETCIEPEHIWTCNKFRGCEKRLTRSLCACSDDCDKDGDCCINYSSVCQGEKSWVEEPCESINEPQ  
CPAGFETPPTLLFSLDGFRAEYLHTWGGLLPVISKLLKKCGTYTKNMRPVYPTKTFPNHYSIVTGLYPESHGIIIDN  
KMYDPKMNASFSLKSKEKFNPWEYKGEPIWVTAKYQGLKSGTFFWPGSDVEINGIFPDIYKMYNGSVPFEEERILA  
VLQWLQLPKDERPHFYTTYLEEDSSGHSYGPVSSEVIKALQRVDGMVGMMDGLKELNLHRCLNLILISDHGME  
QGCKKYIYLNKYLGDVKNIKVIYGPAARLRPSDVPDKYYSFNYEGIARNLSCREPNQHFKPYLKHFLPKRLHFA  
KSDRIEPLTFYLDPQWQLALNPSEKCYGSGFHGSDNVFSNMQALFVGYPGFKHGIEADTFENIEVYNLMCDLL  
NLTPAPNNGTHGSLNHLLKNPVYTPKHPKEVHPLVQCPFTRNPRDNLGCSCNPSILPIEDFQTQFNLTVAEEKII  
KHETLPYGRPRVLQKENTICLLSQHQFMSGYSQDILMPLWTSYTVDRNDSFSTEDFSNCLYQDFRIPLSPVHKCS  
FYKNNTKVSYGFLSPPQLNKNSSGIYSEALLTTNIVPMYQSFQVIWRYFHDTLRLKYAEERNGVNVVSGPVDFD  
YDGRCDLENLRQKRRVIRNQEILIPTHFFIVLTSCKDTSQTPLHCENLDTLAFILPHRTDNSESCVHGKHDSSW  
VEELMLHRARITDVEHITGLSFYQQRKEPVSDILKLKTHLPTFSQED

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**FIGURE 220A**

CCCGGGCTGTGGGCTACAGGCGCAGAGCGGGCCAGGCGCGGAGCTGGCGGCAGTGACAGGAGGCGCGAACC CGCA  
GCGCTTACCGCGCGGGCGCCGACC**ATGG**AGCCCGCCGTGTGCTGGCCGTGTGCGCGCTGCTCTTCCTGCTGTGG  
GTGCGCCTGAAGGGGCTGGAGTTCGTGCTCATCCACCAGCGCTGGGTGTTTCGTGTGCCCTCTTCCTCTGCCGCTC  
TCGCTTATCTTCGATATCTACTACTACGTGCGCGCCTGGGTGGTGTTCAGCTCAGCAGCGCTCCGCGCCTGCAC  
GAGCAGCGCGTGGCGGACATCCAGAAGCAGGTGCGGGAATGGAAGGAGCAGGGTAGCAAGACCTTCATGTGCACG  
GGGCGCCCTGGCTGGCTCACTGTCTACTACGTGTGCGGAAGTACAAGAAGACACACAAAAACATCATGATCAAC  
CTGATGGACATTCTGGAAGTGGACACCAAGAAACAGATTGTCCGTGTGGAGCCCTTGGTGACCATGGGCCAGGTG  
ACTGCCCTGCTGACCTCCATTGGCTGGACTCTCCCGTGTTCCTGAGCTTGATGACCTCACAGTGGGGGGCTTG  
ATCATGGGCACAGGCATCGAGTCATCATCCACAAGTACGGCCTGTTCCAACACATCTGCACTGCTTACGAGCTG  
GTCTGGCTGATGGCAGCTTTGTGCGATGCACTCCGTCCGAAAACCTCAGACCTGTTCTATGCCGTACCCTGGTCC  
TGTGGGACGCTGGGTTTCTGGTGGCCGTGAGATCCGCATCATCCCTGCCAAGAAGTACGTCAAGCTGCGTTTC  
GAGCCAGTGGGGGCTGGAGGCTATCTGTGCCAAGTTCACCCACGAGTCCAGCGGCAGGAGAACCCTTCGTG  
GAAGGGCTGCTCTACTCCCTGGATGAGGCTGTCAATTATGACAGGGGTGATGACAGATGAGGCAGAGCCCAGCAAG  
CTGAATAGCATTGGCAATTACTACAAGCCGTGGTTCTTTAAGCATGTGGAGAATCTCTGAAGACAAACCGAGAG  
GGCCTGGAGTACATTCCCTTGAGACACTACTACCACCGCCACACGCGCAGCATCTTCTGGGAGCTCCAGGACATC  
ATCCCTTTGGCAACAACCCCATCTTCCGCTACCTCTTTGGCTGGATGGTGCCTCCCAAGATCTCCCTCCTGAAG  
CTGACCCAGGGTGAGACCTGCGCAAGCTGTACGAGCAGCACCACGTGGTGCAGGACATGCTGGTGCCCATGAAG  
TGCTGACAGCAGGCCCTGCACACCTTCCAAAACGACATCCACGTCTACCCCATCTGGCTGTGTCCGTTTATCCTG  
CCCAGCCAGCCAGGCCTAGTGACCCCCAAAGGAAATGAGGCAGAGCTCTACATCGACATTGGAGCATATGGGGAG  
CCGCGTGTGAAACACTTTGAAGCCAGGTCTGCATGAGGCAGCTGGAGAAGTTTGTCCGACGCTGCATGGCTTC  
CAGATGCTGTATGCCGACTGCTACATGAACCGGGAGGAGTTCTGGGAGATGTTTGATGGCTCCTTGTACCACAAG  
CTGCGAGAGAAGCTGGGTGCGCAGGACGCCTTCCCGAGGTGTACGACAAGATCTGCAAGGCCGCCAGGCAC**TGA**

GCTGGAGCCCGCTGGAGAGACAGACACGTGTGAGTGGTCAGGCATCTTCCCTTCACTCAAGCTTGGCTGCTTTC  
CTAGATCCACACTTTTCAAAGAGAAAACCCCTCCAGAATCCACCCTGACAGCCCAACACCACCTTCCTCCTGGCT  
TCCAGGGGGCAGCCAGTGGAATGGAAGAATGTGGATTGTGGAGTCAGACAAGCCTGAGTCCAGTTCCCGGTTT  
AGAAGTCAATTAGCTGTGTGACTCTGGGTGAGTCCCTTAACCCCTCTGAGCCCGGGTCTCTTCATTAGTTGAAAGG  
GATAGTAATACCTACTTGCAGGTGTGTGTCATCTGAGTTGAGCACTGGTCACATTGAAGGTGCTGGGTAAGTGGT  
AGCTCTTGTGTGCTTCCCGTTCAGCGTCACATCTGCAGTGGAGCCTGAAAAGGCTCCACATTAGGTACCTGTGCA  
CAGCCATGGCTGGAATGATGAAGGGGATACGCTGGAGTTGCCCTGCCATCGCCTCCATCAGCCAGACGAGGTCT  
CACAGGAGAAGGACAGCTCTTCCCCACCTGGGATCTCAGGAGGGCAGCCACGGAGTGGGGAGGCCCCAGATGCG  
CTGTGCCAAAGCCAGGTCCGAGGCCAAAGTTCTCCCTGCCATCCTTGGTGCCGTCTGCCCTTCTCCTTCATG  
CCTGGGCTGCAGGCCCCACCCAGCCACCACTGAGTCCACTCGGAGTGGCCTGTGTTCTTGGAGAAGGCATTCCA  
GGGTTGAATCTTGTCCCAGCCTCAGCCTGGGACACCTAGGTGGAGAGAGTGGTCTCCGCTCTGAATTGGATCCAG  
GGGACCTGGGCTCATTCTTCTTGGCTCACCAACCTGACAGGCCTCATCTTCCCAAAACCCACTTTGTCTTGGTG  
GGAGTGGGTCCGCGCTGCTCTGCAGCAGGGGCTGGGGAGTGGACAGCATCAGGTGGGAAAGTGGAGTCCACCCTC  
ATGTTTCTGTAGGATTCTACCCGTGGGGCTGGAAGAAAAGAGCATCGACTTGATTTCTCCAACCACTCATCCCTC  
TTTTCTTTCTTCCACCACTCCCCACCCAGCTGTAGTTAATTTAGTGCCTTACAAATCCTAAGCTCAGAGAAA  
GTTCCATTTCCGTTCCAGAGGGAAGGGAACCTCCCTAGGTCTTCCCTGGCTTGTTATAACGCAAAGCTTGGTTG  
TTTATGCAACTCTATCTTAAGAACTGCCCAGCCTCAGCTGAAAACCCGAATCTGAGAAGGAATTGCGTCATGTAA  
GGGAAGCTGGAATTAAGGGAGCTGAGCCAGTCATGGTTGTGGCGTGTGAGTCAGGAGACCTAGGTTTCAGCCCT  
CTCTACTGTGACGAGCTGTGCAACGTGGGCAAGTCATTGTCTCTGAGCTGCAGTTTCTCATCTGTACATCG  
CTACAGACAAGACCTCCCTGGAACCTTCTGATTGTCTTAGACACTGTGGTTGCAAAACCCACGGAAAGCCTCAT  
TTGTGTGGAAGTCAGAGGAAAAATGATCCAGTGGACACTTGGGGATTATCTGTCAATTCAAGATCCTTCTTCAA  
CCCCAAGGCCAGCTCCCATCTCATTTCCAGAAAGGCTCATACTGGCTTGACAGGGAAGCATCTGTCTTGTCAATC  
CAGGTGCCAGAATCCTCTCAGAGTCATTGAAGGGTGTTCACCCATCCCAAGGCTTGGCACACTGCCAGTGT  
CTTAGCAGGGTCTTGTGAGGGCTGGGGGCATCCAGGCACTCAGAAGGCAAAGGAACCACTACCCATTGGCCT  
CTGGAGGGGGCAGAAGAAAGAAAGAAACCTCATCCATATTTTACAAAGCATGTGAATTCTGGCATTAGCTCTCA  
TAGGAGACCCATGTGCTTCTTGGCTCAGTGCAAAAATGATGATTCTACTTGTGTAGATGAATGGTTAACACGAG

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**FIGURE 220B**

CTAGTTAAACAGTGCCATTGTTTTGCCAGTGAAGCCTCCAACCCTAAGCCACTGGGACGGTGGCCAGAGATGCCA  
GCAGCCTCTGTGCGCCCTTAGTCATATAACCAAAATCCAGACCTTATCCACAACCCGGGGCTTGGAAGGAAGGTA  
TTTTGGAATCACACCCTCCGGTTATGTTGCTCCAGTAAATCTTGCCTGGAAAGAGGCAGTCTTCTTAGCATGGT  
GAGCTGAGTTCATGGCTTTTTTTTGTAGCCAGTCCTGTCCCTGGCCATCCATGTGATGGTTTTGGATGGAGTTAA  
ACTTGATGCCAGTGGGCAGTGCATGTGGAAAGTATCAGAGTAAGCCTCTCCCCCTCCAGAGCCCTGAGTTTCTTGG  
CTGCATGAAGGTTTTCTTTAGAAATCAGAATTGTAGCCAGTTTCTTTGGCCAGAAGGATGAATACTTGGATATTAC  
TGAAAGGGAGGGGTGGAGATGGGTGTGGCAGTGTATGGTGTGTGATTTTTATTTTCTTCTTTGGTCATGGGGGCC  
AAGGAGAAAGGCATGAATCTTCCCTGTCAGGCTCTTACAGCCACAGGCACTGTGTCTACTGTCTGGAAGACATGT  
CCCCGTGGCTGTGGGGCCGCTGCTTCTGTTTAAATAAAAGTGGCCTGG



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**FIGURE 221**

MEPAVSLAVCALLFLLWVRLKGLEFVLIHQWVFCVCLLPLSLIFDIYYYVRAWVVKLSSAPRLHEQVRVDIQ  
KQVREWKEQGSKTFMCTGRPGWLTVSLRVGKYKKTHKNIMINLMDILEVDTKKQIVRVEPLVTMGQVTALLTSIG  
WTLPLPELDDLTVGGLIMGTGIESSSHKYGLFQHICTAYELVLADGSFVRCTPSENSDLFYAVPWSCGTGLGFLV  
AAEIRIIPAKKYVKLRFEPVRGLEAICAKFTHEQSQENHFVEGLLYSLDEAVIMTGVMTDEAEPKLNLSIGNYY  
KPWFFKHVENYLKTNREGLEYIPLRHYHHRHRSIFWELQDIIPFGNNPIFRYLFQWVPPKISLLKLTQGETLR  
KLYEQHHVVQDMLVPMKCLQALHTFQNDIHVYPIWLCPPFILPSQPGLVHPKGNEAELYIDIGAYGEPRVKHFEA  
RSCMRQLEKFVRSVHGFQMLYADCYMNREEFWEMFDGSLYHKLREKLGCDAPFEVYDKICKAARH

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**FIGURE 222**

CTCTTCTCACATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGGAGTGG  
CTGCTGGGCCTCTACTTCCTCAGCCACATCCCCATCACCTGTTCATGGACCTGCAGGCGGTGCTGCCGCGCGAG  
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC  
CCAGCCTGGTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTTAGCTGCCTTTCTTTCCCATGCAACGTATGCC  
TTCTCAAAGGAAGCTGCAAGTGGATTGCAACTCCTGCAATCATCTACTCTGTTACACCATGACAACCTTAATT  
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG  
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTTCATACTTTTAATTTTCATGTTG  
CGGAGCCCCCTACTACAAGTATGAAGAGAAAAGAAAAAATGAAGGAAACAACCACTGGCCCCAGGGTAGAGAT  
GCCTACAGGGTGGTTGCTTGTGGATACATACAGGAACACTGCTCAGAACCACGTCTTCAGCAGCATTTGAAAC  
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCCTCACCTTCTTCCATTTTTTTTTT  
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC  
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAATAACAGGTGTGTACCAACACGTATGGCT  
AATTTGTTTTGTTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCAGGTTGGTCTCGAACGCCTAGG  
CTCAAGTGATCTGCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCAGCCCAAACC  
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA  
AGGAAGTGGTACCAAATAACTGTGTTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAACT  
GCTAAAGAACATGSCCTGTTTGACATGTTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCTC  
CACTCCTGATTCTCAAGAGTGTATCACCTGTCAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA  
AATTTTGCTCTTTAATGTTAATTCAAACCTATATCAATGTTTTCTTGTTCACCTCTAACCCAAGGAAAAAAG  
AGAAAACATACTATGCAAAGGAAGTTTAACTTAAAGTTTTCTTAAGGGTCAGCCCAACAATGACTTTCAGTCAA  
ATGGATTAAACTGGAAAATGTTTTGTTTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGT  
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT  
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAACTTTTAAATACA  
GTTCCGTCATTCCCATCTTGTTTTCAGAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG  
AGGGTCTCTTACGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAAGGTTAAATGA  
TGTTAGACAACAGGTCCCAGTCAGTCCCCTCTATTTTACCCATTTTGCTCACAAGCCATATTGGCCCGATTAGT  
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGGAATT

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**FIGURE 223**

GGGTATTTTCATGTTATGCCCATTTATAGTTTACTGTGGATTGTTTGTATCCCTTACCTGCTTTCTATTGGGTTAT  
GTGTGGATAATTTGTTTTATTGTTTCAGCATCTCCTTCCCCATCTTCTGGTAACACAACCTTTATTTATTTGTG  
GGGAACCTATTCCCTGTGGCTTAGGTGAGCATGTGACCAGGCCTGGCCTCCTGAGTCCCACAGCTTCCTAGCCAC  
AGTGATAAAAGAATGGGTATATAACTTAAGCCAGGCTAAGGAAAAGCCCTTAACA

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**FIGURE 224**

TACTTTTAGATTTACTGCCTTCAAAAAGTGCCTATTCTGAGCAACATAAACGTTATTCCTTACATATGTATGTAC  
ACACGGTACCCAGAGTCGTACTGTGGCAGCCTTCAAAAACATACCATCAGAAAGAGTAGGTGCTGAGATAAGGXA  
ACTTTGCCAAATGXAAGAAAGTCACTCACTTCCAATATCCCCCTCTTCAAGCGGCTACCGTGRAASGGGCTGCAAA  
CACATTCCCTGAGCATCCCTTGCTGATACAGCTTCTTTATATTTATATCTACTGGATGGTAGCATATTGCTAAG  
GTTTCCTGTACTCTGCTTCAAGGGAATGTAAGYTTTATGGCATTGAAACATTTAGGAAAAAAAAAAGATGTTTAAG  
AGAATTAATAGAGCCGTAGTCTGTATTAGGATGTGTGTCATATGTGTGTTCTATAAACTAAGCATCGGTGGGTTT  
AGAGTGTTAAAGTGTGAGCAGCATTCTTCTCTTTTGTCTCTCAGGCTAACATGAGAGAAAATAGAAAAGTCTTG  
GCTGTGGGGATTGGAAGCTCAGGGGGCCAAATGTCCTTGCCAGATCCTTAGAGCATTACTTTGACTCCTAAAAAT  
AGTAGTGATGTTATTTGATGGCTTTTGTTCATAGTTCCATCACTGACAAAAGTCAATACTGTTGATGGAG  
CAGCAGCATAGCCTAGAGTGATGCATTCTTACCCAGAGGTGGCAATAGGAGAGGGTCCATGTAAATAGGACGAGG  
TAGACAGTGATGATTGTAGGAGAAGGGTTGAAGGGAGGACATGATTCCAAAAAAGATCGTTCTCAATGTGTCGT  
CTGACTCAACCAGCTGGCAGATTACACTTGCCAAGTCGTTCCCTTTCTCTTAAGTCAGTTGGCTCCATATTAC  
TTGAATATGCCTCTGTTTGGGCAAAGCAAGATACCTCCACTTAACCTTTATCCAAGGAAGCTCTGGTGTCCTCT  
TGGTCATAAAGTTGTCTCCTACCTAACCAGTTTTACCAAATGGAAGTAAAAGGGGACAACTATGGAAGATGGA  
CTCCATGCCATTGCAGTCAGCCACCATTCTCTTTTCCATATAAGGAGCCCCATTACATAAGCTACGGGTGAGGTT  
GGAACAGCTATGTTTCATAATTTCAAGAGTGTGACCACCCTGCTCTAGTCATCATCATTGGATGAATCCAGTTGA  
CTCTTTGGCAAAGGGTGATACTTTTCACTAAAAATGCCTACTCTTCTGTTGATGTTCTTTTCTGTTTTTACC  
TTGTCCAATTTCCACACTAGTCATTTTTTTTTATTTTATAGAGGATCAGATTTTAGCGCTGGAAAATGAGTTCAA  
AATTTAGTGTAATGTCATAAGGATGTTGGGATACAGAGATTTTTTTTTCTTGGAAACAAATGGACTGGGAAG  
AAACACAGCATGGCTTTGCTCTGAGTTTCAATCTGATGATTATGACCATGGAAGATAGTCTTATGTAAAGGTTAA  
ATGGTGTTTACAAGTGATAGATAAGGCGGAGATGGTGAGAAGCCGGGTTTTCTCTATGCTAAATGTGTCTACTA  
AGAGCAGCACTTCCTACTAGCTAAGCACAAATCATAGCCCCACCGTGATGAGCTGCTAGTCTGAATAACATTCCCT  
GACTTAGGGAAAGGCACACAAAAACATATAAAGAATATGTCTATTTTCATATGTGTGATACTGACAGAGCCATGG  
TATTCCTAAAAATATAGGTTTCTCTTTTTTCTTGTAATCTTAGCAAATTGCATTTATTCCTACATTACAAACCAT  
CACTGATGTATCCAAAAATAGCACACATAGTTTCAAGTATGAAAATAAGAGAATAAAATCTGTTATAAGCAAGTGATT  
TAGGTATTTTCTTTTGTGTTTATGCATTATCTGACTATATTAACCTGTTTTTCTATTTACCTTCTATCAGTTT  
TCTCTACCAATTATGTTTTTTCAATGCTCTATAAGAATGAATATGGAAATTATTTCTTTTTTCTGTAAAAGAG  
TTGCAACTACTTTATTATATTTAGAAATCCAATAAACTTCTTATTACATTTAAAAAAAAAAAAAAAAAACTCGAA

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**FIGURE 225**

MVFLKYRELF~~FL~~VL~~FL~~ANCIYSLHYKPSLMYPK

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**FIGURE 226**

TGGGCAATTAAACCAAGCCATAGCCCAATGAATATGAAGTCCGGAGAAAGAGCTTAATAAAACGTTTGGATTGTCACCT  
GTACAATCCTTTGGCTGGTCTGACAGAGCTAAGAGCCAGACAGAAAAATTAGCCAAGGTTTACCAGCCGAAACGT  
TCAGTCTTATCCCCTAAAACACTACTATTTCTGTTGCCATCTTTTGGCTGCAAGGCAGGACTTGTCAAAGATTTTA  
AGGACAAGCAGCGGCTCTATAAGAGAAAAAGACTGCCCTGTGCCATCAATAAGGTGTTGATGGGCAGGGTGCCTGAC  
AGAGGTGGTAGACCAATGAAATCGAACCTCCACC CCCAGAGATGCCACCGTGGCAGAAGAGGCAAGATGGCCCC  
CAGCAGCAAAACAGGAGGCCGAGTAGGAGGGAGAGGTGGCTATGAACATTCTTCATACGGAGGACGAGGAGGTCAI  
GAACAAGGAGGCGGGAGAGGTGGACGTGGTGGCTATGACCATGGTGGCCGAGGGGGAGGAAGAGGAAATAAGCAT  
CAAGGAGGCTGGACAGATGGAGGGAGTGGTGGAGGAGGTGGCTACCAAGATGGTGGTTATCGAGATTACAGGTTTC  
CAGCCAGGTGGCTATCATGGTGGCCACAGCAGTGGTGGCTATCAAGGCGGAGGTTATGGTGGCTTCCAAACATCT  
TCTTCATATACAGGAAGTGGATACCAGGGTGGTGGCTACCAGCAGGACAATAGATACCAAGATGGCGGGCACCAT  
GGTGATCGTGGTGGTGGTCTGGTGGGCGAGGTGGTCTGGAGGCCGAGGTGGTCTGCAGGCCAGGGAGGAGGC  
TGGGGAGGAAGAGGGAGCCAGAATTATCACCAGGGGGTCAATTTGAACAGCATTTCAGCATGGAGGTTATCAG  
TATAATCATTCTGGATTTGGACAGGGAAGACATTACACTAGTTTGAAGGCTACCGAACCTTTACATTTTGCTAGAGCT  
CAAGTAATAGAAACTTAGTTTCAGAACTCTGAATT CAGCACCTATTTTGAATTAATGTGAGACCACAGGTGGCAG  
GCAGATTCTCTGCTTGGCATAAGCATTGTAGGTCTTCATTCAATTCTGTTAGATTTTTTTATTGGACTTACATAA  
TGCCGTTTATTTGAGAAACACATAACATCTCTCCTTCCTATGAAAAATTTTTTAAAGGTGGTTAAAATTGCCTT  
TAATTGCCCAGTAGACTAATTCACAGTCAGAACA TGCAAACCTTTTTTGAAGAAATTACTTGAATAAGTAGTTTT  
CATGTTTTCAATATGCAGTTTTGAAAATGAGGATT CACCTAGACTTTTTTAGATTTACTACTAGGAAACCTTCCT  
CATATGAATAACCATTTATATGTGTTTTGCTTAAAGTATTCCAATGCCTATTTTCCAAGCACAGTCTGCCCCC  
GGTTGACTTTTTATGCCACGTGTGCTTCATGATGGAACTTTTAGGTCAGTTCCTATTAAATGAGCTCTTCTGCAGA  
TAGCACATT CAGTAGCCTTATTTTGTGATGGAAT ACTGTATCATATGCTCAACTCTGAAAACCTTGAACACGGC  
CAAAATCCATAAAGATTATAAAAGCAAAC TAAGTTGTGAAGCTATAGTACATGTAGGCATTTAGTTAAGTATAGC  
AATTCAAAC TGACCTGCATCCATCCAAAACAAATTCTCTTCAACCTTATTTTTACTTGAAATTTGCTAGAAGA  
AATAGCAAACCGAAATTTGTTTTATGCATGAGTTAATACCAC TGGCTCAGCAAATACAAGTTAGTTTGCTTTAAG  
CAGGTAAC TTTTTTTGTAATGGAAGAAATGCACTACAAAGTTAAGACAGATTTTTGCTAAGTGCAGGAGGCCCTT  
TATTATTGCTGCGAGAAAAACAAAGCCTGGCTGAGT TGATGTTTTACATTCTCCCTTACTGAAATCTACATGACAT  
GATGCTTCTTGCTGGGTTTTTGTACATGTAAACAT TGTC AAGCTGTGAAAGAAAATGGCTGGAGGTGTGCTTTGT  
GTGAAAGGTGAGCAATAAAGTATCTGTTAAGTTCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 227**

WAINQAIANEYEVRRKLLIKRLDVTVQSFGWSDRAKSQTEKLAKVYQPKRSVLSPKTTISVAHLLAARQDLSKIL  
RTSSGSIREKTACAINKVLGRVPDRGGRPNEIEPPPEMPWQKRQDGPQQQTGGRVGGRRGGYEHSSYGGRGGH  
EQGGGRGGRRGGYDHGGRGGGRGNKHQGGWTDGGSGGGGGYQDGGYRDSGFQPGGYHGGHSSGGYQGGGYGGFQTS  
SSYTGSYQGGGYQQDNRYQDGGHHGDRGGGRGGRGGRGGRGGRAGQGGGWGGRGSQNYHQGGQFEQHFQHGQYQ  
YNHSGFGQGRHYTS

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**FIGURE 228**

GGAAGTCTGCTCATGGAAGTGGCTCCTCTCCTCTTGCCACTTGAGTCTGTTTCGAGAAGTCCAGGGAAGAACTTG  
AAGAGCAAAATACACTCTTGAGTTTGTGGGTTTTGGGAGAGGTGACAGTAGAGAAGGGGGTTGTGTTTAAATA  
AACACAGTGGCTTGAGCAGGGGCAGAGGTTGTGATGCTATTTCTGTTGACTCCTAGCAGCCATCACCAGCATGAA  
TGTGTTTCGTAGGGCCTTTGAGTGTGGCGATTGTCAATTTCTGTTGGATAACAATGTATTGGGTGTCGATTGTCAT  
GGGGCAGGGGAGAGGGCAGTACACCTGGAGGACCATTTTGTCCACATCGACACCATCAGTCTGCTCTTAGAGGAT  
GCCCTGGAGTATTCGGCGTTGATTGCGGGGCACCCGAAATCAGACTTGCCACCTGGACTGTCGAGGTGCAGACCC  
TGGGAGCACCCTGGCCCATCTCTTACACAGGCTGACCGATTTCTCCTGGTGTTCAGAGTCTGTTTTGTCTAGC  
ACCATTTGAAATCGGTTATGATGTAGGGGAAAAGCAGCAGCCTCGAAGCCTCATGCCAACTCTGGGCAGCAGCA  
GCCTGTGGTTTCCTGGAAGATGGATGGGCAGAGAA TAGGGAAGGAAGATCATGCTTTTCCCTACTA ACTTCTGTA  
ACTGCATGTATGATACATTATTGCAGAGGTAAGAGATAGTTTAATGGATTTTAAAAACAAATTACTATAATTTA  
TCTGATGTTCTCTAGTTGCATTTTGCTGAAATGTAGTGCTGTTCTAAATTCTGTAAATTGATTGCTGTTGAATTA  
TCTTTCTGTTGAGAAGAGTCTATTCATGCATCCTGACCTTAATAAATACTATGTTTCAGTTAAAAAAAAAAAAAA  
AAAAAAAAAAGGGCGGCCGC



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**FIGURE 229**

AGAEVVMFLFLTPSSHQHECVRRAFECGDCHILLDNNVLGVDCHGAGERAVHLEDHFVHIDTISLLLEDALEYS  
ALIAGHPKSDLPPGLSRCRPWEHHWPISYTG

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**FIGURE 230**

CCGAGGCACTGCCACCACCAGCTCTAGCAGGGATGCTCCTGAGCTTGGCGGACATACTTAGATCCTAACGTGCCA  
GTGAGACCTGGCTGTGGAGAGTAGCACTGGCAGCCCTGCCTGGACTCCACTTGGCATGATACCAGCTCCAGAAGG  
GAAGGGAGTGGAGCAGGCAGTGAGGAGAGAGCCTGGGGGTCGGCTGGGGACAGCCGTATGTGCTAGGTAGGAGTG  
GAGGGAGATATGTTTACCAAATGCCTGTCCTGCCATCCTCCCAGGTAGTCAGAGTGAGCTACATCCTGCCCCGCC  
TTCATTTCCATGGAAACATGGCAGCTAGGACACGGGGTACAACAGCAGCCAAATTCTTCCCCACCTCCCTTACTT  
CGAAAAAAAGTTTGGAACCCTGGTCCCTATACTCTGCAGTCAGAAGTGGGACTGAGCCATACATGCCCTTGAATT  
CCTCCCTGTCTGGCCCTCCCTCTCCAGCAAGCAGGGTTTTCTTTAACTTGGCAGTGTGCAGAGGAGAAGTGGTAA  
CACCCCCACCCCATTTCCCCTGCATCGGAGCTCAGTATTCTTACAGGGTAAGAGGTAGGAATCTTGCTGGGACGAG  
GGGAGCCAGAAGTGGCAATAAAAAGCGTGTTGACC TGGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 231**

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTGCGCTTCGCCTCCTGAATCCCTAGCCATATGCGTGA  
GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA  
CGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT  
CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAAACCCACAGTCATTGATGAAGT  
TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA  
TGCCCCAGGGGCACTACACCATTGGCAAGGAGATCAATTGACCTTGTGTTGGACCGAATTTCGCAAGCTGGCTGACCA  
GTGCAACCGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGTTCTGGGTTACCTCCCTGCT  
CATGGAACGCCTGTGAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCAGGTTTC  
CACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCTGGAGCACTCTGATTGTGCCTTCAT  
GGTAGACAATGAGGCCATCTATGACATCTGTGCTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA  
CCGCCTTATTAGCCAGATTGTGTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGAC  
AGAATTCCAGACCAACCTGGTCCCCCTACCCCGCATCCACTTCCCTCTGGCCACATATGCCCTGTGATCTCTGC  
TGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGT  
GAAATGTGACCCTGGCCATGGTAAATACATGGCTTGTGCTGCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT  
CAATGCTGCCATTGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT  
TGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT  
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC  
CTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTAGAGGCCCGTGAAGATATGGCTGCCCT  
TGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATACTAAATT  
ATCCATTCTTTTGGCCCTGCAGCATGTCATGCTCCAGAATTTAGCTTCAGCTTAACTGACAGATGTTAAAGC  
TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCCATCATATCTC  
AAAGTAAAGTCATTAACATCA

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**FIGURE 232**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTRLQGFLVFHSFGGGTGSFT  
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPPRIHFPLATYAPVISAEKAYHEQLSVADITNACFEPAN  
QMVKCDPGHGKYMCCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYEVGVDSVEGE GEEGEE  
Y

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**FIGURE 233**

ATAATCACCTGGGTATATTTTATTAGGGAAAAATGACAATATTGATAATAAAAAGAGAAAGGAAAAATGAAAATG  
CATCTCAGACCAGAATACCATAACAAAACCTTTTGTGGAAGCTGCATTTTATTTGAAAATCCACCCATTTTGCTAA  
CATACTTTTAAATATTGTAAACAAAAATAGAATCTGCAGAGACAATGCAACAAGAATGCTTAACTCATGTACAG  
AATTGCTTTCCTACAATGAAGTGTCTTCTTAAGGCCCCCTCTCCACCCAAATGTTAAAGATGTATTTACACAAAG  
CACCGATCAACAGTGCAGTTTAATTCTTCGTTTACTAAACTCTTGGCTAGACATTAACCTTTAAAGATACTATTTT  
CCCTTATTTAAAAGGTATATGA

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**FIGURE 234**

CAGTATTTCCCTCAGTACTGTAAGCAAAAGTGGT ATGTTTTTCTTTCTTTATGTCTACTCTGTCCTCTGTGGCCT  
TCTGGTGTACCCCTCTCTTCCTAGCCATTTCAGTCTCTCTAGTCACCTCCCTAGTAGCTAGTGCTCTCT TAAGTTTT  
TATTTAATTAGAACAACTCCATTTCCATTTCAAGGTAGGTCAATGGGGGGAAAAGCCTCATGATTTAAACTGAAG  
TTAACAACACAGCTTTTAAAATGAAAACATCACTCCAACCTTCTAAAGTATATTTGAGCTGATTTGTTTCCAAAA  
CAAAGATATGCTGTACCTAAAACCTGCTAAAACAAAAATATAAAGACAAGGACTAGGTGATTAAGGGGAGAGAAAA  
ATCATYTCCTTTCCAGGAAACCTTTGCTAAAATAAGCAAAACCTTGAXTCTATGCTTCATGGAACTGACACAAAG  
AAAAGAACTGATGGATTGCACAGGCCTTGTTATAGAAATAGATCTATAAAAAGATCTGTCCACAGGAAATATAC  
ACCTTCTCCTGGTTCGAACTTCAATGGGGATTGTCACCTAGGTCTCCATCTATAGGAATACCTTCACATACCT  
ATCTATTTCATGCACATATTCTGAAAACAGGTACATACAAAATTACAACAAAGGAAAAAAATTCTATTGAACACTT  
AAAAATAGAAACAGGCCAGGCACGGTGGCTCATGCTGTAATCCCAACAATTTGGGAGGCTGAGGCTGGTGGATCA  
CCTGAGGTCAGGAGTGTGAGACCAGCTTGGCCAACATGGTGAAACCCCGTCACTACTAAAAATACAAAAAAATT  
AGCCTGTGTGGTGGCACACTCXTACAATCCXGGCTGACTCGGGAAAX

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**FIGURE 235**

MFFFLYVYSVLCGLLVYPSLPSHSVSLVTSLVASAL

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**FIGURE 236A**

AAAATACTTGCCCTTTGGAAAAAATCATTCTGGCGTCCACATTCAGACTGGTTTAGAGGAGAGTAATACTGAAG  
ACATGCCCCCGAATCAAGGTAGCAATTGCGGAGATGAAAAGAAATGAGTCCAAAAGATGCTTAAATGTGACCA  
TTGAACAGGATTTGACTCATTGGATATGAGGCCATGGAGCAGTGTCTGGCTAGGTGGATGGATGTTGGTGCTGTT  
TAGTTAAATAGGAACTGGAAGAGAAGCAGGCTTGCAAGAATGGTAATATTTTGGACGTGTAACCTGTCTGGCAA  
GATGTTGAAGAGGTAAGGAGGCAGCACAGCATCATGGGCCTTGAGGCAGAAAGCCGCTTTGATTTACTCAGAAC  
ACCAAATCAGTCTCCATTTTCTTGACTCAGACTACACCCAAGAGATTGCTTCCTTCCCTGTGCTTCCCTGGCCACT  
TGCTACTCTAGCTAGGAAGATCTGCCTCCCTTAGCTGAAGTCTAAGATGTGTAGCTTATGTATGCCTCTCCTCTT  
CTTGTTCTGCTGTGCTGAATATAATGGGGATGCCAGGGCAGACATACCATTCAACTTGAATCTTCTTACCCAC  
TTTGATAGTCTTACATGTCATTGATACCTTGTTTTCTGGTACGCCTAAAAGGAGTAGAACTTCAAGTGGTATTT  
AAAAGCTTTAAGAAAAGTCAAATTTTTACTTTTTTCTTCCCATCTGAGGCATGGATTTATTTTCTTTTAAAGAA  
ATCCAAATTTTAAAAGAAGGGATCTTATTTTTAAAACGAAGATCGATAATATCTACTATGTACTAAATGTCATT  
CTTTAAAAGTTGTTCCCTCATAATTTAGTAAATTACTTCTTTTTTAAAAAAGGAAAGAAAGAGTGTGTCTT  
ACAGGCTAACATCACAAACAATAAGTTTTCTTCTCATCCATCTCCATTTATAAACTAGTGTGACTGTCTTCTGAGC  
ACAGTATTAAACCTGGACAGGGAGAGGGAGGGTGTAGAGAATGAGAGGGAAAGAGAGAGAATACCTACATATAA  
GGTGACCTTAAAGAAAAGCCTTTACCCTTCGGAAGATCTTTTCATTTTCTTTTTTCAAACACCAACT  
TGTACCAGAGGGAAGATCTTTTTTAAAAGCGTTTCACTAAAATTTGTAAGGAAATAATGAGCTAGATAAAATAT  
TACAGTGTTTATTTAATGAATTTACTCATATTTAAAATAATATCTAAAAAGAGTAATTTAGGAATATTGAGGCAA  
TGAGACTTGAAGGTTATAAATAGTGGCAGTGAGAAAAGGAATATTATAGATAAGCTGTTGAAAAGAAAAGATGCT  
AAGTTTTCTAGTGCTTCTTCTGTTTCCAAGGGATTATAGAAATCGGAGTTTGTGTGACCTGTTTACAGGCATC  
TCCTTTGTGGACTCATTGTGTCTCTTCTTAGGCTAATAGTCACCATTTATCATGGACGGTTGTCTAGAGTGTG  
AAGCACACTTAACCTGCTTCGTGAGAGGGTACTTGGCATCACCGGTGCACAGCTGGTGTCTTAGCAGGAGACTAA  
CTAGCTGACACACCGTGCTTTGTTAGCCTAATAATCTTATTTGTTAAAACCTTGCCATTTGTTGGATTTTTCTATT  
TTACCCCATTTATAAACTTCTTATTGAGATCAGATGACTTCTGAATAGCATTTGCTGTATTTTTCCAAGGTAAAGA  
ATATCTTTTTTCAAGTTTTTCTTTCTTTCTTTAATGTCAGAAATAGAAGAAATCTTTCTACCGACCTTGTGCCAG  
GAGATGTCATGGTTCATTCCATTAAATGGGACAATAATGCCTTGTGATGCTGTGCTTATTAATGGTACCTGCATTG  
TAAACGAAAGCATGTTAACAGGAGAAAGTGTTCCAGTGACAAAGACTAATTTGCCAAATCCTTCAGTGGATGTGA  
AAGGAATAGGAGATCAATTATATAATCCGGAACACATAAACGACATACTTTGTTTTGTGGGACAACCTGTTATTC  
AGACTCGTTTTCTACACTGGAGAACTCGTCAAAGCCATAGTTGTTAGAACAGGATTTAGTACTTCCAAAGGACAGC  
TTGTTTCGTTCCATATTGTATCCCAAACCAACTGATTTTAAACTCTACAGAGATGCCTACTTGTCTTACTATGTC  
TTGTGGCAGTTGCTGGCATTGGGTTTTATCTACACTATTATTAATAGCATTTTAAATGAGGTACAAGTTGGGGTCA  
TAATTATCGAGTCTCTTGATATTATCACAATTACTGTGCCCCCTGCACTTCTGTGCAATGACTGCTGGTATTG  
TGTATGCTCAGAGAAGACTGAAAAAATCGGTATTTCTGTATCAGTCCTCAAAGAATAAATATTTGTGGACAGC  
TCAATCTTGTGTTGCTTTGACAAGACTGGAACCTAACTGAAGATGGTTTAGATCTTTGGGGGATTCAACGAGTGG  
AAAATGCACGATTTCTTTCACCAGAAGAAAATGTGTGCAATGAGATGTTGGTAAATCCCAGTTTGTGCTTGTA  
TGGCTACTTGTCACTTCACTTACAAAATGAAGGAGTGCTCTCTGGTGATCCACTTGATCTGAAAATGTTTGAGG  
CTATTGGATGGATTCTGGAAGAAGCAACTGAAGAAGAAACAGCACTTCATAATCGAATTATGCCACAGTGGTTC  
GTCCTCCCAAACAACTGCTTCCTGAATCTACCCCTGCAGGAAACCAAGAAATGGAGCTGTTTGAACCTCCAGCTA  
CTTATGAGATAGGAATTGTTTCGCCAGTTCCCATTTCTTCTGCTTTGCAACGTATGAGTGTGGTTGCCAGGGTGC  
TGGGGGATAGGAAAATGGACGCCCTACATGAAAGGAGCGCCGAGGCCATTGCCGGTCTCTGTAAACCTGAAACAG  
TTCTGTGCGATTTTCAAACGTTTTGGAAGACTTCACTAAACAGGGCTTCCGTGTGATTGCTCTTGACACAGAA  
AATTGGAGTCAAACTGACATGGCATAAAGTACAGAATATTAGCAGAGATGCAATTGAGAACAACATGGATTTTA  
TGGGATTAATTATAATGCAGAACAAATTAAGCAAGAACCCCTGCAGTACTTGAAGATTGCAATAAGCCAACA  
TTCGCACCGTCATGGTCACAGGTGACAGTATGTTGACTGCTGTCTCTGTGGCCAGAGATTGTGGAATGATTCTAC  
CTCAGGATAAAGTGATTATTGCTGAAGCATTACCTCCAAAGGATGGGAAAGTTGCCAAAATAAATGGCATTATG  
CAGACTCCCTCACGCAGTGCAATCATCCATCAGCAATTGACCCAGAGGCTATTCCGGTTAAATGGTCCATGATA  
GCTTAGAGGATCTTCAAATGACTCGTTATCATTTTTGCAATGAATGGAAAATCATTCTCAGTGATACTGGAGCATT  
TTCAAGACCTTGTTTCCCTAAGTTGATGTTGCATGGCACCGTGTGTTGCCCGTATGGCACCTGATCAGAAGACACAGT  
TGATAGAAGCATTGCAAAATGTTGATTATTTTGTGGGATGTGTGGTATGGCGCAAATGATTGTGGTGCTTTGA



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**FIGURE 236B**

AGAGGGCACACGGAGGCATTTCCCTTATCGGAGCTCGAAGCTTCAGTGGCATCTCCCTTTACCTCTAAGACTCCTA  
GTATTTCCCTGTGTGCCAAACCTTATCAGGGAAGGCCGTGCTGCTTTAATAACTTCCTCCTGTGAATTAGCACTAT  
TTTCTATAGTTACTTATTCTCTGGATCATTTTATAATTTCCATATTAATTTCAAGTATGCTCGTGTTATTCTTCA  
GTGATTTCCACAATTGTGCATTTTATTCTTTGGTTTAAAGTACTGAAGCATATAATGAAAGTAATTGCTAAGTAGC  
AGCTTAAAAATTCAATTATCCGATTGTATTTAACA TCTTTAAGAGCATGATCATAAAGAGCTATTTTGGACACCC  
CCCCCCCCTTTTTTAACATTTAGAGTTAGTAAGGGTTTTATATCTCTTCTGTCCATATTGTTTTCAAAGGAATG  
AGGTGTTTAGGTGGCTGGAAAAGCATTTGTAGGAAGTTAGATTTGAATATAGACAAGGTGGGTATTACAGTTGA  
GAATGTTATTTGAAGAATGCCTGTGAAGCCAGGTGTGGGTTCTACTCAGTGCCATAGATAGACTGAGTCTTCTCT  
CGTAGGTTACCATTACATAGTAATTTTGATTCTGAATTTACATTAAATTATTTGAGTTTATACAGACCTAAATT  
TTAAAATCTGTACATATATTATTTTGATGTATTAAGATGAATATTGCTGATTTAAATTTTATTTATGCACATACT  
TAAAGGACAGAAATGTCTGGGAAAGTAATTGTTAAATAATGATATGTAACTTTTTAACTTTTTAAATAAATAACA  
AGATTTTTTAATGTGTGTCTCCCTCAGGGTTGTTTAAAGTTTTTTTTCTCCCTCAAGTATAAATAGTGGTAACAT  
ATGTTTTGTATCTTCTAGCACCAACTGCTGTAAAGCAATGCTGCAAATAATGCTTGAATACAAGTGGCTAAGCCA  
ACAACAGAATAAATACTTTTATAGTAGTTTTATAATCCTGAAATTCGAAAGCTTTCCCAATTGCACTTGCATCTA  
AACAAAACCTGTTGCAGTTTTTACTCTATTTATTTTGTTCCTCATGTTTATGAAAGTCCTGCACAGTTTCAAAGGC  
ATGGTAAATAATATATCAATGTTTATGTAGTCTGTTACAGAAACAGCTATAGATAACATTATCCAGTGAAGAGCA  
AAATTCAGCTTTAGAAAATATTCATGCATGCAATTTTGACATATCTAAAAATAGGTTTTTGTATATTTATGGTG  
GGAGGTGGTTGGGAACTTTTAACAAAATGGGGTGTAAATTTTTGTACAGTCTGTGGGCATTTACACATTTTTAAT  
GTATTAAAAATTGGTAATTATGTGTACATTAAATTAATAAAAGTTACTTCTAGTTATGATTTGTGAATCCCTAA  
GACCTTGGATTTTTTTAAGTAACTTTATATCAGAAATGATACTGCATCTTTATATTTTTAAATTTGTATTGCTGC  
TCAAGAATGGTACCCTCTTGTCAAAAAGGCATACATTCATAATTGTACATTCAGCATTGTAAATAATCTTATGAA  
ACCTTTTTTGATTGAAGCTATTCAAAATAAAAAATTTAATGAATGAAATAA

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**FIGURE 237**

MSEIEEIFSTDLPDGMVPLNGTIMPCDAVLINGTCIVNESMLTGESVPVTKTNLPNPSVDVKGIGDQLYNPE  
THKRHTLFCGTTVIQTRFYTGELVKAIVVRTGFSTSKGQLVRSILYPKPTDFKLYRDAYLFLCLVAVAGIGFIY  
TIINSILNEVQVGVIIIESLDIITITVPPALPAAMTAGIVYAQRRLKKIGIFCISPQRINICGQLNLVCFDKTGT  
LTEDGLDLWGIQRVENARFLSPEENVCMNMLVKSQFVACMATCHSLTKIEGVLSGDPLDLKMFEAIGWILEEATE  
EETALHNRIMPTVVRPPKQLPESTPAGNQEMELFELPATYEIGIVRQFPFSSALQRMSSVVARVLGDRKMDAYMK  
GAPEAIAGLCKPETVPVDFQNVLEDFTKQGFVRVIALAHRKLESKLTWHKVQNISRDAIENNMDFMGLIIMQNKLK  
QEPPAVLEDLHKANIRTVMTGDSMLTAVSVARDCGMILPQDKVIAEALPPKDGKVAKINWHYADSLTQCSHPS  
AIDPEAIPVKLVHDSLEDLQMTRYHFAMNGKSFVILEHFQDLVPEKMLHGTVFARMAPDQKTQLIEALQNVDYF  
VGMCGDGANDCGALKRAHGGISLSELEASVASPFTSKTPSISCVNLIREGRAALITSSCELALFSIVTYSLDHF  
IISILISSMLVLFFSDFHNCAFYSLV

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**FIGURE 238**

GGCTGTGGAACGGCGGGGAGGAGGCCGCCGAGGAGACCCCGGGCGAGGAGCTGCGAGCCGGAGGAGGCCGCGC  
GGACTCCGGGCTTTCCGCCGTCGCGGGGATCTCGGGGGCAAAGGGATCGCCGGGAGGGGGACCAGAGAGCCGC  
GCCC GCCGCGCGGAGCGCCCCCTTCGCGTCCCCTGCACCATGAGCTGGGGCACCGAGCTCTGGGATCAGTTTGACA  
ACTTAGAAAAACACACACAGTGGGGAATTGATATTCTTGAGAAATATATCAAGTTTGTGAAAAGAAAGGACAGAGA  
TTGAACTCAGCTATGCAAAGCAACTCAGGAATCTTTCAAAGAAGTACCAACCTAAAAAGAACTCGAAGGAGGAAG  
AAGAATACAAGTATACGTTCATGTAAAGCTTTTCATTTCACCTGAACGAAATGAATGATTACGCAGGGCAGCATG  
AAGTTATCTCCGAGAACATGGCATCACAGATCATTGTGGACTTGGCAGCCTATGTTTACGAACTGAAACAGGAGA  
GGAAATCAAACCTTTCACGATGGCCGTAAAGCACAGCAGCACATCGAGACTTGCTGGAAGCAGCTTGAATCTAGTA  
AAAGGCGATTTGAACGCGATTGCAAAGAGGCGGACAGGGCGCAGCAGTACTTTGAGAAAATGGACGCTGACATCA  
ATGTCACAAAAGCGGATGTTGAAAAGGCCCGACAACAAGCTCAAATACGTCACCAAATGGCAGAGGACAGCAAAG  
CAGATTACTCATCCATTCTCCAGAAATTCACCATGAGCAGCATGAATATTACCATACTCACATCCCCAACATCT  
TCCAGAAAATACAAGAGATGGAGGAAAGGAGGATTGTGAGAATGGGAGAGTCCATGAAGACATATGCAGAGGTTG  
ATCGGCAGGTGATCCCAATCATTGGGAAGTGCCTGGATGGAATAGTAAAAGCAGCCGAATCAATTGATCAGAAAA  
ATGATTACAGCTGGTAATAGAAGCTTATAAATCAGGGTTTGAGCCTCCTGGAGACATTGAATTTGAGGATTACA  
CTCAGCCAATGAAGCGCACTGTGTCAGATAACAGCCTTTCAAATTCCAGAGGAGAAGGCAAACCAGACCTCAAAT  
TTGGTGGCAAATCCAAAGGAAAGTTATGGCCGTTTCATCAAAAAAATAAGCTTATGTCCCTTTTAACATCCCCC  
ATCAGCCTCCCCCTCCCCCTCCTGCCTCTGCCTCACCTCTGCTGTTCCCAACGGCCCCCAGTCTCCCAAGCAGC  
AAAAGGAACCCCTCTCCACCGCTTCAACGAGTTCATGACCTCCAAACCCAAAATCCACTGCTTCAGGAGCCTAA  
AGCGTGGGCTTTCTCTCAAGCTGGGTGCAACACCGGAGGATTTAGCAACCTCCCACCTGAACAAAGAAGGAAAA  
AGCTGCAGCAGAAAGTCGATGAGTTAAATAAAGAAATTCAGAAGGAGATGGATCAAAGAGATGCCATAACAAAA  
TGAAAGATGTCTACCTAAAGAATCCTCAGATGGGAGACCCAGCCAGTTTGGATCACAAATTAGCAGAAGTCAGCC  
AAAATATAGAGAACTGCGAGTAGAGACCCAGAAATTTGAGGCCTGGCTGGCTGAGGTGAAGGCCGGCTCCCAG  
CACGCAGCGAGCAGGCGCGCCGGCAGAGCGGACTGTACGACAGCCAGAACCCACCCACAGTCAACAACCTGCGCCC  
AGGACCGTGAGAGCCAGATGGCAGTTACACAGAGGAGCAGAGTCAGGAGAGTGAGATGAAGGTGCTGGCCACGG  
ATTTTGACGACGAGTTTGATGATGAGGAGCCCCCTCCCTGCCATAGGGACGTGCAAAGCTCTCTACACATTTGAAG  
GTCAGAATGAAGGAACGATTTCCGTAGTTGAAGGAGAAACATTGTATGTCATAGAGGAAGACAAAGGCGATGGCT  
GGACCCGCATTTCGGAGAAATGAAGATGAAGAGGGTTATGTCCCCACTTCATATGTCGAAGTCTGTTTGGACAAAA  
ATGCCAAAGATTCCTAG

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**FIGURE 239**

LWNGGEEPPRRPRARSCEPEEAARTPGFPPSRGSRGAKGSPGRGTREPRPPRGAPLRVPCTMSWGTELWDQFDN  
LEKHTQWGIDILEKYIKFVKERTEIELSYAKQLRNLSKKYQPKKNSKEEEEYKYTSCKAFISNLTNEMNDYAGQHE  
VISENMAEQIIVDLARYVQELKQERKSNFHDGRKAQQHIETCWKQLESSKRRFERDCKEADRAQQYFEKMDADIN  
VTKADVEKARQQAQIRHQMAEDSKADYSSILQKFNHEQHEYYHTHIPNIFQKIQEMEERRIVRMGESMKTYAEVD  
RQVIPIIIGKCLDGIVKAAESIDQKNSQLVIEAYKSGFEPPGDIEFEDYTQPMKRTVSDNSLSNSRGEKPKDLKF  
GGKSKGKLWPFIIKKNLMSLLTSPHQPPPPPPASASPSAVPNGPQSPKQKPELSHRFNEFMTSKPKIHCFRSLK  
RGLSLKLGATPEDFSNLPPEQRRKKLQKQVDELNKEIQKEMDQRDAITKMKDVYLKNPQMGPASLDHKLAEVSQ  
NIEKLRVETQKFEAWLAEEVEGRLPARSEQARRQSGLYDSQNPPTVNNCAQDRESPDGSYTEEQSQESEMKVLATD  
FDDEFDDEEPLPAIGTCKALYTFEGQNEGTISVVEGETLYVIEEDKGDGWTRIRRNEDEEGYVPTSYVEVCLDKN  
AKDS

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**FIGURE 240**

TCTAGGCCGGCAGCGCCTCTCCTCCATGGTCCTGTCTGTCTCAGCGCTGTTTTGGGAGCCCGCCGGTGAGGCCGGGC  
CACGCTCAGACACTTCGATCGTCGAGTCTGTCACTGGGCATGGCGGGTCAGTTCCGCAGCTACGTGTGGGACCCG  
CTGCTGATCCTGTCTCGAGATCGTCTCATGCAGACCGTGTATTACGGCTCGCTGGGCCTGTGGCTGGCGCTGGTG  
GACGGGCTAGTGCGAAGCAGCCCCCTCGCTGGACCAGATGTTTCGACGCCGAGATCCTGGGCTTTTCCACCCCTCCA  
GGCCGGCTCTCCATGATGTCTTCACTCAACGCCCTCACCTGTGCCCTGGGCTTGTCTGTAATTCATCCGGCGA  
GGAAAGCAGTGTCTGGATTTCACTGTCACTGTCCATTTCTTTACCTCCTGGGCTGTGGTTCTACAGCTCCCGT  
TTCCCTCGGGCTGACCTGGTGGCTGGTCCAAGCCGTGTGCATTGCACCTCATGGCTGTCTATCGGGGAGTACCTG  
TGCATGCGGACGGAGCTCAAGGAGATACCCCTCAACTCAGCCCTAAATCCAATGTCTAGAATCAGGCCCTTTGG  
ACATCCTGTCTGACACTTGGGCCCCCTTAACACCTTGGGCTGTCTCAGACCCTCCAGATGAGGTCCAGCCCAGATCTG  
AGAGGAACCCTGGAAATGTGAAGTCTCTGTTGGTTTGGGAGAGATAGTGAGGGCCTGTCAAAGAAGGCAGGTAGC  
AGTCAGCATGACAGCTGCAAGAATGACCTCTGTCTGTTGAAGCCTTGGTATCTGAGAGGTCAGGAAGGGGACCTC  
TTTGAGGGTAATAACAGAATTGGAACCATGCCACTCTTGAGCCACAATACCTGTCACCAGCCTGTTGTTTAAAGA  
GAGAAAAAAATCAAGGATATCTGATTGGAGCAAACCACTTCTTTAGTCATCTGTCTTACCCCCCTGGGACAGCT  
GTTACCTTTGCAGTGTGGCCGAATCACAGCAGTTACCTTTGCAGTGTGGCCGAATCACAGCAGTTCTGTTGGAGA  
AACGCTTGGTTTTCCGGATCCAGAGCCACAGAAAGAAATGTAGGTGTGAAGTATTAGGCTGTCTGTGAGGGAGAGGA  
TGGCAGATGGAGGCATCAAGCACAAGGAAAATGCACAACCTGTGCCCTGTTATACACACGTTCTATGTGCACCCAA  
GAACCTATGACTTTCTTCCAGTTCTTCTACCAGGTCCCCATCCTGCTGCCAGCTCTCAACATAGCAGGCCATAG  
GACCCAGAGAAGAATCCAGCGTTGCTCAAAGTCTAACCATCATAAAGACACTGCCTGTCTTCTAGGAATGACCA  
GGCACCAGCTCCCACTGGACTCCAATTTTTTTTCTGCCTTATTTAGAATTCTTTGGCGGGAAGGGTATGATGG  
GTTCCAGAGACAAGAAGCCCCAACCTTCTGGCCTGGGCTGTGCTGATAGTGTGAGGGAGATAGGAATTTGCTGC  
TAAGATTTTTCTTTGGGGTGGAGTTTCTCTGTGAGGGGCTTGACGCTATCCTTCTGTGTATACAAATACAGTA  
TTTTCCATGGTTCTGCCTGCACTTACTTTGTAATGCCACGGTTGAGATTGAGAGAGATCAGCGCAGCCAGGCAAG  
GGAACTTTAAAGAATTATTAGGCCACCTTCTCCCTTCTGGACCCAGAGTCATTCTCCATTTGGTTAAAAATA  
CTCAGTGCAGGGAACCTTACATCCTGTCTCCTTCACTTGCAGCGTCCCCTGCTATGCCTCAGGTGAACCACATA  
ATTCTTGGGTTTCCGTTCTACTTGTAGTGATTTCTGAACATGTTCAATGGAGCGGCACACAGTCTAGACCCAC  
TTCCGCATTGAAACCTTCACTGTTCTCTTTGGTTTCTTTCAGAGCTTTCCCAAGAGAGCTGTGAGTTTTAGCTG  
TCAGTAACACAAATGAGTTTATGGTAACACAAATGAGTTTTGCTATCTCTCTGAGAAGCTCATCTGACCTCCTGA  
CTCTCAGCCCTACAGAGTAGGGAGTTGATGCTGACAGGATGAAGATTTAGGAATAAATATGCCTGGGAAGAGACT  
GGGAAGGTTCTAGGGTGAGGCACCTCAGTAACCTCATGGTACCTTGGCCAAGTTGGAAGGAAGCAGTTTTGTTAATG  
AGGCACAGTAATCCTGGCTGCAGGGTCTAGGAGGTAAGACCAGCTGGGATGACCTTCCCTGGGTTAATCAATTTT  
CCTCTAGACAACACAACTGCAGGCATGTGACTAACTTTGAAAGAACCCCATCATGTGGCTGCTGTACCCCTTG  
ACCAGCCGTGGTGGTGGTTACTCCATCTGTGGTTGGAGCGCTCTTTGGGATTCACCTCAAGGTCTTGTGCTAT  
TTTTCTGCATATCTTCTGTGATGACAAATCTCTGTCCCCTGAGTGTTAATTTGATTTTTAGAAATGGCCAAAAGT  
CACGTGATCCAACTTTTTTTTCAGTAATATGGAGACTGAGCTGCATGGTAGTTGGGGATCAAAAATATGTGACCT  
TAATGAGATTTTTATGATTTCTAAAGTAACAATAAAGCAGTTTTTAGAGTTGAGTTCCAGAGAGGGCAGGGCAA  
TGGCAGTGACATGTTTGTCATTTTAATAATAAATAACATCTATTGAGTGCTTAA

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**FIGURE 241**

TCGACCCACGCGTCCGGGGAAGGAAAACCTCCAAACACAAGAGGAATTTGGCTATCACTGGAGGAGTGACTTTGT  
CGGTCATTGCATCCCCAGTTATTGCTGCAGTTAGTGTTGGTATTGGTGTCCCCATTATGCTGGCATATGTTTATG  
GGGTTGTGCCATTTCTCTTTGTGCTGGAGGTGGCTGTGGAGTTAGCACAGCCAACGGAAAAGGAGTGAAAATTG  
AATTTGATGAAGATGATGGTCCAATCACAGTGGCAGATGCCTGGAGAGCCCTCAAGAATCCCAGCATTGGGGAAA  
GCAGCATTGAAGGCTGACTAGTGTATTGAGCACTAGTGGAAAGCCCTACAGATGGACTTAGTGTTATGCAAGGTC  
CTTACAGCGAAACGGCCAGCTTTGCAGCCCTCTCAGGGGGCACGCTGAGTGGCGGCATTCTCTCCAGTGGCAAGG  
GAAAATATAGCAGGTTAGAAGTTCAAGCCGATGTCCAAAAGGAAATTTTCCCCAAAGACACAGCCAGTCTTGGTG  
CAATTAGTGACAACGCAAGCACTCGTGCTATGGCCGGTTCCATAATCAGTTCCTACAACCCACAGGACAGAGAAT  
GCAACAATATGGAATCCAAGTGGACATTGAAGCCAAACCAAGCCACTATCAGCTGGTGAGTGGAAGCAGCACGG  
AGGACTCGCTCCATGTTTCATGCTCAGATGGCAGAGAATGAAGAAGAAGGTAGTGGTGGCGGAGGCAGTGAAGAGG  
ATCCCCCTGCAGACACCAAAGCTGTGAACAGAAAGACTGCCTGGCCAGCAAACCTTGGGACATCAGCCTGGCCC  
AGCCTGAAAGCATCCGCAGTGACCTAGAGAGTTCTGATGCACAGTCAGACGATGTGCCAGACATCACCTCAGATG  
AGTGTGGCTCCCCCGCTCCCATACTGCAGCCTGCCCCCTCGACCCCAGAGCCCAAGGTGCACCGAGCCCAAGTG  
CCCATATGAACCTCTCTGCCCTAGCCGAGGGACAACTGTCTTGAAGCCAGAAGGTGGAGAAGCCAGAGTATGAA  
GTGGAATGAATGCTCCTGTTCTGAGAAGCACACTTGTAAGTGCATCTTTTGAATTTTTTTTTTTTTTTTCCAA  
GGGTTAGAGATTTATGTATTTTATTTACAGATTCTCTGGTCACAGGTTTTTGCCAGGGAAATCTGAGAAATT  
CACAATTTCTTACCAGATAAAACATGAAAAGTTTGCCGTTAGTCCCCTCCCCTCCCCTCCCTCTTTTATGTTT  
AATTTATTAGTTAAACTGATGGCAGCAATCCATGAGGTGTGTCAAAGAGTGACATATGTATGTGTGTATATTGA  
ATGCTAAACATATTACTGAAAGACACATTTTAATAAAGATTTCTGTCATAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 242**

AGACTCCCTGTCTTTGCGGTTTGGGAGATGATGAGAAACACAGAATTGCTAGTAGTTTATGTGGAGATCAGGTC  
TTCTCCAAGAAAAAAGAAAAAACAACATGGCTGCAAAGGAGAACTGGAGGCAGTGTTAAATGTG  
GCCCTGAGGGTGCCAAGCATCATGCTGTTGGATGTCTGTACAGATGGGATGTCAGCTCCTTTTCCAGCAGATC  
CAAAGAAGTAGCCTTAGTAATAACCTCTTTTCCAGTATAAGTATTTGGCTCTTAATATGCATTATGTAGGTTAT  
ATCTTAAGTGTGGTGCTGCTAACATTGCCAGGCAGCATCTGGTTTCAGCTTTATCTATATTTTGGACTGCTCTG  
CTCCTCTATGCTGGACATCAAATTTCCAGGGACTATGTTCCGAGTGAACCTGGAGTTTGCCATGAGGGACCAATG  
TATTTAGAACCTCTCTCTATGAATCGGTTTACCACAGCCTTAATAGGTCAGTTGGTGGTGTGTACTTTATGCTCC  
TGTGTCATGAAAACAAAGCAGATTTGGCTGTTTTCAGCTCACATGCTTCCTCTGCTAGCACGACTCTGCCTTGTT  
CCTTTGGAGACAATTGTTATCATCAATAAATTTGCTATGATTTTTACTGGATTGGAAGTTCTCTATTTTCTTGGG  
TCTAATCTTTTGGTACCTTATAACCTTGCTAAATCTGCATACAGAGAATTGGTTCAGGTAGTGGAGGTATATGGC  
CTTCTCGCCTTGGGAATGTCCCTGTGGAATCAACTGGTAGTCCCTGTTCTTTTCATGGTTTCTGGCTCGTCTTA  
TTTGCTCTTCAGATTTACTCCTATTTTCAGTACTCGAGATCAGCCTGCATCACGTGAGAGGCTTCTTTTCTTTTT  
CTGACAAGTATTGCGGAATGCTGCAGCACTCCTTACTCTCTTTTGGGTTTGGTCTTCACGGTTTCTTTTGTGGC  
TTGGGTGTTCTCACACTCTGCAAGTTTACTTGCAGGGTTATCGAGCTTTCATGAATGATCTGCCATGAATCGG  
GGCATGACAGAAGGAGTAACGCTGTTAATCCTGGCAGTGCAGACTGGGCTGATAGAAGTGCAGGTGTTTCATCGG  
GCATTCTTGCTCAGTATTATCCTTTTCATTGTCGTAGCTTCTATCTACAGTCTATGTTAGAAATTGCAGATCCT  
ATTGTTTTGGCACTGGGAGCATCTAGAGACAAGAGCTTGTGGAACACTTCCGTGCTGTAAGCCTTTGTTTTATT  
TTATTGGTATTCCCTGCTTATAATGGCTTATATGATTTGCCAGTTTTTCCACATGGATTTTGGCTTCTTATCATT  
ATTTCCAGCAGCATTCTTACCTCTCTTCAGGTTCTGGGAACACTTTTTATTTATGTCTTATTTATGGTTGAGGAA  
TTCAGAAAAGAGCCAGTGGAAAACATGGATGATGTCATCTACTATGTGAATGGCACTTACCGCCTGCTGGAGTTT  
CTTGTGGCCCTCTGTGTGGTGGCCTATGGCGTCTCAGAGACCATCTTTGGAGAATGGACAGTGTGGGCTCAATG  
ATCATCTTCATTTCCTACTATAACGTGTGGCTTCGGGCCAGCTGGGGTGAAGAGCTTCTTCTCCGCAGG  
GATGCTGTGAATAAGATTAAATCGTTACCCATTGCTACGAAAGAGCAGCTTGAGAAACACAATGATATTTGTGCC  
ATCTGTTATCAGGACATGAAATCTGCTGTGATCACGCCTTGCACTATTTTTTCCATGCAGGCTGTCTTAAGAAA  
TGGCTGTATGTCCAGGAGACCTGCCCTCTGTGCCACTGCCATCTGAAAACTCCTCCCAGCTTCCAGGATTAGGA  
ACTGAGCCAGTTCTACAGCCTCATGCTGGAGCTGAGCAAAACGTCATGTTTCAGGAAGGTACTGAACCCCCAGGC  
CAGGAGCATACTCCAGGGACCAGGATACAGGAAGGTTCCAGGGACAATAATGAGTACATTGCCAGACGACCAGAT  
AACCAGGAAGGGGCTTTTGACCCCAAAGAATATCTCACAGTGCAGAAAGATGAAGCACATCCTGTTGAATCAGCC  
**TAG**AGGAGAAGCAGCAGGAATGATGCTTTGATACTCTGGAGGAGAAGTTAACTCAAGATGGAATTCATGTTCTGA  
TTTGAGGAATGAAAATGAGATGATCAGGCAGGAACTGACATTCCAAGGATCTAATCCAGGAAGTACTCTCAGTG  
GGGACCACCTGCTTTTCATCCCTGACATTGTGGGAGAAATTTGCAATGTATGCTAATCAAAATGTATTTATATG  
TTCTCTGCTGATGTTTTATAGAGGTTTGTGAAGAAAATTCAACCTCAGCAACTTCAGAAACTGCCCTGTACGT  
GTGAGAGAGAAATAAAATCAGATTTTGTGTTGAAGGGACTGAGGAAGTGAAGATAAAGAGCATGAGGACAGCA  
TGGAAGAAGGAGGCAGAAGTGAAGTGAAGTTCCTCTCCATGGGACAGATCAATCTCATTATCAAGTCTGAA  
TAGCAACCAGCCCTCTCCTCCACCCCGTTTCTCCTCAGTTAATTGGAGCTCAGTCAGGTGATTATTGAGTCTTGT  
ACAGCACTGAAATGAAATCAAAGATGAAGAAGCATTGATTGTATTGCAAGATTGAAGCACGCTCATACTTTGTAT  
GTGCTTTAGGGAAGGGGTGGGTGGGCCTTGGGCCCTGCGGGTGCATTTCATGTAATCTGAGACTCTTGAACCTTA  
TGACGGAGTCTTCAATATTTTGTATATGAACTTTTGTAAATATGTTGTATACTTCGCTGGCTGTGTGAAG  
TAACTAAAACCTCTGATGAACACTTTGGAGTCTGCTTTAGTGAAGGAGACCAAAGTGGGAAGGGCTTTAGGGCAC  
TGATAGAGGCCCTGGGTGTACTTTTCAATCCTGTGTAATGTTTAAATCTTGAACCTGAATCAAAACAGTGTAA  
TTATGGCAATATTTGCACCTTTGGGAATGAGTACATACTGTATGATCACACTCTGCAAATGCCACTTTTAAAGCT  
GTTAATAGACTTTGCACCTTTCTTTGACAAGGATGTGTCATATTTAAATTTTACATTTCATCATGGCTACAGGT  
AGAAGTGGGGAGGGGGGAATGTAATTTTTTATGGGAATTTTGATATGAAAAGAACTAGTCATTTATTTATACAA  
TAGGCTTGGCTCAAAAAGTGTTTTTCAGACCTCGGTATTCCTAATGTGGGATGTGACTTTATTTTATTTTATAGTA  
GCAATTTGGATGTAGACTGACAGACATAGCTGAATGTCCTAATAAATTTAAATTTGAAGAT

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**FIGURE 243**

MMRNHRIASSLCGDQVFSKKKKKKKKNNMAAKEKLEAVLNVALRVPSIMLLDVLYRWDVSSFFQQIQRSSLSNNP  
LFQYKYLALNMHYVGYILSVLLTLPRQHLVQLYLYFLTALLLYAGHQISRDIYVRSELEFAYEGPMYLEPLSMNR  
FTTALIGQLVVCTLCSCVMKTKQIWLFSAHMLPLLARLCLVPLETIVIINKFAMIFTGLEVLVYFLGSNLLVPYNL  
AKSAYRELQVVEVYGLLALGMSLWNQLVVPVLFMVFWLVLFALQIYSYFSTRDQPASRERLLFLFLTSIAECCS  
TPYSLLGLVFTVSFVALGVLTLCCKFYLQGYRAFMNDPAMNRGMTEGVTLILAVQTGLIELQVVHRAFLLSIILF  
IVVASILQSMLEIADPIVLALGASRDKSLWKHFRAVSLCLFLLVFPAYMAYMICQFFHMDFWLLIISSSILTSL  
QVLGTLFIYVLFMVVEEFRKEPVENMDDVIYYVNGTYRLLEFLVALCVVAYGVSETIFGEWTVMGSMIIFIHSYYN  
VWLRAQLGWKSFLRRDAVNKIKSLPIATKEQLEKHNDICAICYQDMKSAVITPCSHFFHAGCLKKWLYVQETCP  
LCHCHLKNSSQLPGLGTEPVLQPHAGAEQNVMFQEGTEPPGQEHTPGTRIQEGSRDNNEYIARRPDNQEGAFDPK  
EYPHSAKDEAHPVESA



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**FIGURE 244**

AAGGGGTTCCAGTACTTCTCTACCCTGGAAGAAGCAGAGAAGCACCTGAGGCAGGAGCCAGGGACCCAGCCCTAC  
AACATCAGAGAAGACTCCATTCTGGACCAAAAGGTTGCCCTGCTCAAGGCATAATGGGGCCACCCGTGGGCATCC  
ACAGTTTGCAGGGTGTTCCGGAAGGTTCTTGTCACTGTGATTGGATGCTGGATGCCGCCTGATAGACATGCTGGC  
CTGGCTGAGAAACCCCTGAGCAGGTAACCCAGGGAAGAGAAGGAAGCCAGGCCTGGAGGTCCACGGCAGTGGGAG  
TGGGGCTCACTGGCTTCCTGTGGGATGACTGGAAAATGACCTCGCTGCTGTTCCCTGGCATGACCCTCTTTGGAA  
GAGTGGTTTGGAGAGAGCCTTCTAGAATGACAGACTGTGAGAGGAAGCAGGGGCAGGGGTTTCCAGCCCGGGCTG  
TGCGAGGCATCCTGGGGCTGGCAGCACCTTCCCGGCTCACCAGTGCCACCTGCGGGGGAGGGACGGGGCAGGCAG  
GAGTCTGGGAGGCGGGTCCGCTCCTCTTGTCTGCGGCATCTGTGCTCTCCGAGAGAAAACCAAGGTGTGTCAAAT  
GACGTCAAGTCTCTATTTAAAAATAATTTTGTGTTTTCTAAATGGAAAAAGTGATAGCTTTGGTGATTTTGTAAA  
AGTCATAAATGCTTATTGTAAAAAATACAGGAAACCACCCCTCACCTGTCCACTTGGGTGATCATTCCAGACCC  
CTCCCCAAACATGCATATGTACCTGTCCGTCAGTGTGTGGATGTATGTTTACAGTTCTACATAAATGGGATCATT  
TTATACATGGTGCTCTGGAACCCACATTTTTTCATGCAGTCATTTGCAGTGAATTATTTATTGTGATAATAAATAG  
CATTAGAATACAAAAAAAAAAAAAAAAA

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**FIGURE 245**

CCCCTTTATTTCTTCTTGCTTTGCGTCTTTAACACCTCTCGACCCTGTCCTCCCCCGCCACTGGAAGTCTTCC  
CGTCTCTAAATGGAATTAGTGGAGCCCGGAGCCTCTGGTGTAACGCACAGACATGATCCATGGGCGCAGCGTGCT  
TCACATTGTAGCAAGTTTAAATCATCTCCATTTGTCTGGGGCAACCAAGAAAGGAACAGAAAAGCAAACCACCTC  
AGAAACACAGAAGTCAGTGCAGTGTGGAACCTGGACAAAACATGCAGAGGGGAGGTATCTTTACCTCTCCCAACTA  
TCCCAGCAAGTATCCCCCTGACCGGGAATGCATCTACATCATAGAAGCCGCTCCAAGACAGTGCATTGAACCTTTA  
CTTTGATGAAAAGTACTCTATTGAACCGTCTTGGGAGTGCAAATTTGATCATATTGAAGTTCGAGATGGACCTTT  
TGGCTTTTCTCCAATAATTGGACGTTTCTGTGGACAACAAAATCCACCTGTCATAAAATCCAGTGGAAGATTCT  
ATGGATTAAATTTTTTGCTGATGGAGAGCTGGAATCTATGGGATTTTCAGCTCGATACAATTTACACCTGGGAG  
ACTATTTGTCTACAAGAAATCTCTGGAGTGGCTCTCTTAATAAAAACTCTGGCCAGTGATCTACATTGGGAAA  
GCCATCTCACTTCTGTGTGTAAGAGAAGACATGTGTGTTTCAGCATCCAACCTCCTCAGAGCTGCGCAAGCAGATAT  
CCTGACTTTAAGGACCTTGGAGCTTTGAAACCATTACCAGCGTGTGAGTTTGAGATGGGCGGTTCCGAAGGAATT  
GTGGAGTCTATACAAATTATGAAGGAAGGCAAAGCTACTGCTAGCGAGGCTGTTGATTGCAAGTGGTACATCCGA  
GCACCTCCACGGTCCAAGATTTACTTACGATTCTTGGACTATGAGATGCAGAATTCAAATGAGTGAAGAGGAAT  
TTTGTGGCTGTGTATGATGGAAGCAGTTCCTGGAGGATTTGAAAGCTAAGTTCTGTAGCACTGTGGCTAATGAT  
GTCATGCTACGCACGGGTCTTGGGGTGATCCGCATGTGGGCAGATGAGGGCAGTCGAAACAGCCGATTTTCAGATG  
CTCTTCACATCCTTTCAAGAACCTCCTTGTGAAGGCAACACATTCTTCTGCCATAGTAACATGTGTATTAATAAT  
ACTTTGGTCTGCAATGGACTCCAGAACTGTGTGTATCCTTGGGATGAAAATCACTGTAAAGAGAAGAGGAAAACC  
AGCCTGCTGGACCAGCTGACCAACACCAGTGGGACTGTCAATTGGCGTGACTTCCTGCATCGTGATCATCCTCATT  
ATCATCTCTGTCACTCGTACAGATCAAACAGCCTCGTAAAAAGTATGTCCAAAGGAAATCAGACTTTGACCAAGACA  
GTTTTCCAGGAGGTATTTGAACCTCCTCATTATGAGTTATGCACTCTCAGAGGGACAGGAGCTACAGCTGAATTT  
GCAGATGTGGCAGATGACTTTGAAAATTACCATAAACTGCGGAGGTCACTTCCAAATGCATTCATGACCATCAC  
TGTGGATCACAGCTGTCCAGCACTAAAGGCAGCCGCAGTAACCTCAGCACAAGAGATGCTTCTATCTTGACAGAG  
ATGCCACACAGCCAGGAAAACCCCTCATCCCACCCATGAACAGAAGAAATATCCTTGTGATGAAACACAACCTAC  
TCGCAAGATGCTGCAGATGCCTGTGACATAGATGAAATCGAAGAGGTGCCGACCACCAGTCACAGGCTGTCCAGA  
CACGATAAAAGCCGTCCAGCGGTTCTGCCTCATTGGGTCTCTAAGCAAACATGAATCTGAATACAACACAACCTAGG  
GTCTAGAAAAGAAAATTCAGAGAAGAACTATTTATACAAACATGGGGACTGTGAAAAGAAAATTTCTATAGTGAAT  
TGTGAAAAGTGGACATATTTCTAAATTCATTCCACTGCCTTTATCCAAACTTAAGAATTACAGACATTTGTTATT  
CCTTCGGCAAGACATCCCCGCTGCACACTGATATGTTTCATTTTCGTAATTTGGTTGCTGGCCACCAAGTGCTCCTT  
AGTTTTTTAAATACATTTTGAGATTAACTGGAACTTGAAGAAGAAATTAGTTCCCGATTAAAGACTATCCCACTT  
TATTTTTATTGTGAGTTTCACTTTTGTTCATGTTGTTTTATGTCCTTTGTTATATAATTGTACATTGTGTGATA  
TGTGAAAAAAAACACGAATTTGGATGAACCTTG

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**FIGURE 246**

MIHGRSVLHIVASLIILHLSGATKKGTEKQTTSETQKSVQCGTWTKHAEGGIFTSPNYP  
SKYPPDRECIYIIIEAA  
PRQCIELYFDEKYSIEPSWECKFDHIEVRDGPFGFSPIIGRFCGQONPPVIKSSGRFLWIKFFADGELESMGFS  
A  
RYNFTP

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FIGURE 247A

CGCTCGCTCGCAGAGAAGCCGCGGCCCATGGAGCCCGCCGGCCCCGGCCCCCGCCGCTCGGGCCGCTGCTCTGC  
CTGCTGCTCGCCGCGTCTGCGCCTGGTCAGGAGTGGCGGGTGAGGAGGAGCTGCAGGTGATTACGCCTGACAAG  
TCCGTGTTGGTTGCAGCTGGAGAGACAGCCACTCTGCGCTGCACTGCGACCTCTCTGATCCCTGTGGGGCCATC  
CAGTGGTTTCAGAGGAGCTGGACCAGGCCGGGAATTAATCTACAATCAAAAAGAAGGCCACTTCCCCCGGGTAACA  
ACTGTTTCAGACCTCACAAAGAGAAACAACATGGACTTTTCCATCCGCATCGGTAACATCACCCAGCAGATGCC  
GGCACCTACTACTGTGTGAAGTTCCGGAAGGGAGCCCCGATGACGTGGAGTTTAAGTCTGGAGCAGGCACTGAG  
CTGTCTGTGCGCGCCAAACCCTCTGCCCCCGTGGTATCGGGCCCTGCGGCGAGGGCCACACCTCAGCACACAGTG  
AGCTTCACCTGCGAGTCCACGGCTTCTCACCAGAGACATCACCTGAAATGGTTCAAAAATGGGAATGAGCTC  
TCAGACTTCAGACCAACGTGGACCCCGTAGGAGAGAGCGTGTCTACAGCATCCACAGCACAGCCAAGGTGGTG  
CTGACCCGCGAGGACGTTCACTCTCAAGTCATCTGCGAGGTGGCCACGTCACCTTGACGGGGGACCCTCTTCGT  
GGGACTGCCAACTTGTCTGAGACCATCCGAGTTCCACCCACCTTGGAGGTTACTCAACAGCCCGTGAGGGCAGAG  
AACCAGGTGAATGTCACCTGCCAGGTGAGGAAGTTTACCCCCAGAGACTACAGCTGACCTGGTTGGAGAATGGA  
AACGTGTCCCGGACAGAAACGGCCTCAACCGTTACAGAGAACAAGGATGGTACCTACAACCTGGATGAGCTGGCTC  
CTGGTGAATGTATCTGCCCACAGGGATGATGTGAAGCTCACCTGCCAGGTGGAGCATGACGGGCAGCCAGCGGTC  
AGCAAAAGCCATGACCTGAAGGTCTCAGCCACCCGAAGGAGCAGGGCTCAAATACCGCCGCTGAGAACACTGGA  
TCTAATGAACGGAACATCTATATTGTGGTGGGTGTGGTGTGCACCTTGCTGGTGGCCCTACTGATGGCGGCCCTC  
TACCTCGTCCGAATCAGACAGAAGAAAGCCAGGGCTCCACTTCTTCTACAAGGTTGCATGAGCCCGAGAAGAAT  
GCCAGAGAAATAACACAGGACACAAATGATATCACATATGCAGACCTGAACCTGCCCAAGGGGAAGAAGCCTGCT  
CCCCAGGCTGCGGAGCCCAACAACCACACGGAGTATGCCAGCATTACAGACCAGCCCGCAGCCCGCGTTCGGAGGAC  
ACCCTCACCTATGCTGACCTGGACATGGTCCACCTCAACCGGACCCCCAAGCAGCCGGCCCCCAAGCCTGAGCCG  
TCCTTCTCAGAGTACGCCAGCGTCCAGGTCCCAGGAAGTGAATGGGACCGTGGTTTGCTCTAGCACCCATCTCT  
ACGCGCTTTCTGTCCCACAGGGAGCCGCGGTGATGAGCACAGCCAACCCAGTTCCCGGAGGGCTGGGGCGGTGC  
AGGCTCTGGGACCCAGGGGCCAGGGTGGCTCTTCTCTCCCCACCCCTCCTTGGCTCTCCAGCACTTCTTGGGCAG  
CCACGGCCCCCTCCCCCACATTGCCACATACCTGGAGGCTGACGTTGCCAAACCAGCCAGGGAACCAACCTGGG  
AAGTGGCCAGAACTTCTGGGGTCCAAGAACTCTTGTGCTCCGTCCATCACCATGTGGGTTTTGAAGACCCTCG  
ACTGCCTCCCCGATGCTCCGAAGCCTGATCTTCCAGGTGGGGAGGAGAAAAATCCACCTCCCTGACCTCCACC  
ACCTCCACC  
CCCCTTTAGATCAAACCTGCCCTTCCATGGAAAAGCTGGAAAAAACTCTGGAACCCATATCCAGGCTTGGTGAG  
GTTGCTGCCAACAGTCTTGGCTCCCCATCCCTAGGCTAAAGAGCCATGAGTCTTGGAGGAGGAGAGGACCCCT  
CCCAAAGGACTGGAGACAAAACCTCTGCTTCTTGGGTCCCTCCAAGACTCCCTGGGGCCCAACTGTGTGCTC  
CACCCGACCCATCTCTCCCTTAGACCTGAGCTTGCCCTCCAGCTAGCACTAAGCAACATCTCGCTGTGGAC  
GCCTGTAAATTACTGAGAAATGTGAAACGTGCAATCTTGAAACTGAGGTGTTAGAAAACCTTGATCTGTGGTGT  
TGTTTTGTTTTTTTTCTTAAACAACAGCAACGTGATCTTGGCTGTCTGTGATGTGTTGAAGTCCATGGTTGGGT  
CTTGTGAAGTCTGAGGTTTAACAGTTTGTGTGCTGGAGGGATTTTCTTACAGCGAAGACTTGAGTTCTCCAAG  
TCCAGAACCCCAAGAATGGGCAAGAAGGATCAGGTCAGCCACTCCCTGGAGACACAGCCTTCTGGCTGGGACTG  
ACTTGGCCATGTTCTCAGCTGAGCCACGCGGTGGTAGTGAGCCTTCTGTGACCCCGCTGTGGTAAGTCCAGCC  
TGCCCAGGGCTGCTGAGGGCTGCCTCTTGACAGTGCAGTCTTATCGAGACCCAACGCCCTCAGTCTGCTCATCCGT  
AAAGTGGGATAGTGAAGATGACACCCCTCCCCACCCTCTCATAAGCACTTTAGGAACACACAGAGGGTAGGG  
ATAGTGGCCCTGGCCGTCTATCTTACCCCTTAGTGACCGCCCCCATCCCGGCTTTCTGAGCTGATCCTTGAAGA  
AGAAATCTTCCATTTCTGCTCTCAAACCTACTGGGATCAAACCTGGAATAAATTGAAGACAGCCAGGGGGATGGT  
GCAGCTGTGAAGCTCGGGCTGATTCCCCCTCTGTCCAGAAGGTTGGCCAGAGGGTGTGACCCAGTTACCCTTTA  
ACCCCCACCCTTCCAGTCGGGTGTGAGGGCCTGACCGGGCCAGGGCAAGCAGATGTGCAAGCCCTATTTATTC  
AGTCTTCACTATAACTCTTAGAGTTGAGACGCTAATGTTTATGACTCCTGGCCTTGGGATGCCCAAGGGATTTCT  
GGCTCAGGCTGTAAAAGTAGCTGAGCCATCCTGCCATTCTTGGAGGTCTACAGGTGAAACTGCAGGAGCTCAG  
CATAGACCCAGCTCTCTGGGGGATGGTCACCTGGTGATTTCAATGATGGCATCCAGGAATTAGCTGAGCCAACAG  
ACCATGTGGACAGCTTTGGCCAGAGCTCCCGTGTGGCATCTGGGAGCCACAGTGACCCAGCCACCTGGCTCAGGC  
TAGTTCCAAATTCCAAAAGATTGGCTTGTAACCTTCGTCTCCCTCTCTTTTACCCAGAGACAGCACATACGTGT  
GCACACGCATGCACACACACATTCAGTATTTTAAAGAATGTTTTCTTGGTGCCATTTTCATTTTATTTTATTTT

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**FIGURE 247B**

TTAATTCTGGAGGCGGAAATAAGGGAATAAGGCCAAGGAAGATGTATAGCTTTAGCTTTAGCCTGGCAACCTGG  
AGAATCCACATACCTTGTGTATTGAACCCAGGAAAAGGAAGAGGTCGAACCAACCCTGCGGAAGGAGCATGGTT  
TCAGGAGTTTATTTTAAGACTGCTGGGAAGGAAACAGGCCCATTTTGTATATAGTTGCAACTTAACTTTTTGG  
CTTGCAAAATATTTTGTATAAAGATTTCTGGGTAATAAAAAAAAAA

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**FIGURE 248**

MEPAGPAPGRLGPLLCLLLAASCAWSGVAGEEELQVIQPDKSVLVAAGETATLRCTATSLIPVGPIQWFRGAGPG  
RELIYNQKEGHFPRVTTVSDLTRNNMDFSIRIGNITPADAGTYICVKFRKGSPDDVEFKSGAGTELSVRAPSA  
PVVSGPAARATPQHTVSFTCESHGFSRPDITLKWFKNGNELSDFTNVDPVGESVSYSIHSTAKVVLTRDVDHSQ  
VICEVAHVTLQGDPLRG TANLSETIRVPPTLEV TQQPVRAENQVNVTCQVRKFYPQRLQLTWLENGNVSRTETAS  
TVTENKDGTYNWM SWLLVNVSAHRDDVKLTQVEHDGQPAVSKSHDLKVS AHPKEQGSNTAAENTGSNERNIYIV  
VGVVCTLLVALLMAALYLVRI RQKKAQGSTSSTRLHEPEKNAREITQDTNDITYADLNLPKGKKPAPQAAEPNNH  
TEYASIQTSPPASEDTLT YADLDMVHLNRTPKQPAPKPEPSFSEYASVQVPRK

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**FIGURE 249**

CGGAAGTTCTGGACTGCAGTTGAGTGGAATGGGCAACGGCGGGCGGAGCGGCCTGCAGCAGGGGAAGGGGAACG  
TGGATGGGGTGGCAGCGACTCCTACTGCTGCCTCGGCCTCCTGCCAGTACAGGTGCATCGAATGCAACCAGGAGG  
CCAAAGAGTTGTACCGAGACTATAACCACGGTGTGCTGAAGATAACCATCTGTAAATCCTGCCAGAAACCTGTAG  
ACAAATATATCGAGTATGATCCTGTTATCATCTTGATTAATGCTATATTGTGCAAAGCTCAGGCCTACAGACATA  
TTCTTTTCAATACTCAAATAAATATCCATGGAAAACCTCTGCATATTTTGTGTTTGCTTTGTGAAGCATACCTGAGGT  
GGTGGCAGCTTCAAGATTCCAACCAGAATACTGCCCTGATGACTTGATCAGATATGCTAAGGAATGGGATTTCT  
ATAGAATGTTTGCGATTGCTGCTTTAGAACAACTGCCTATTTTATTGGCATTTTTACCTTCCTGTGGGTAGAAC  
GGCCCATGACGGCAAAAAAAAAAGCCCAACTTCATTTTGCTGCTGAAAGCATTATTATTATCTAGCTACGGAAAAC  
TCTTGCTGATTCCAGCTGTCATTTGGGAACATGACTACACATCTGTGTGCCTCAAACCTATTAAAGTATTTGTTC  
TTACATCAAATTTTCAGGCAATTAGAGTGACCCTAAACATCAACCGTAAGCTCTCCTTCTTGGCCGTGTTGAGTG  
GCTTACTGCTGGAAAGCATCATGGTCTACTTCTTCAGAGTATGGAATGGGATGTTGGAAGTGATTATGCCATCT  
TTAAATCTCAGGACTTCTGAAGAGTTTTATTCTTCTTCACTATCTGTGGCATGACCAGCTGTATCTGAAAGAGAA  
AAGACATGAAATATAAACCAACCTCCTCATTCTGTTGAGTAAATGAAGCAAAGATTGGAAACACTTTCTGAAA  
AAGAAAGCAATGATAATAGCGGTGGATACCCACCCCCACAAATGCACCCAAGAGACAAGCCATTTACATACAGAT  
ATTCACAGTCACACATAGAAACACCCACATGGACACAAGGAATGTTGCTGCAGAGACTGAATGACATGCAACAGG  
TGAAGGTTTATACGTTATACACAAGGCCAGGTAAGCGCTCATAATTCACACATAATAAAACATCTAGGTTTCATT  
CCTTTGACATGTTTATATCTTTTTAATTTAAATGTTGTTACTGGCTTAAATATTTTGTGTTCTTACAATAGAAA  
CGCTTTTAATAAAGTCTTTCAGAATAAACCAAGTTTTTGTAATTTTCAATTCAATAATTAAGGTAATCTTTAAA  
ATTGGATGATCCAAAAATAAGTGATAATGAAAACCACTGAGTTATATACTTTGCAAGGGTAAATTACATCTGAAT  
AAAGCTGTAATTA AAAACAAAAA

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**FIGURE 250**

MGNNGGRSGLQQGKGNVDGVAATPTAASASCQYRCIECNQEAKELYRDYNHGVLKITICKSCQKPVDKYIEYDPVI  
ILINAILCKAQAYRHILFNTQINIHGKLCIFCLLCEAYLRWWQLQDSNQNTAPDDLIRYAKEWDFYRMFAIAALE  
QTAYFIGIFTFLWVERPMTAKKKPNFILLKALLSSYGKLLIPAVIWEHDYTSVCLKLIKVFVLTSNFAQIRV  
TLNINRKLSFLAVLSGLLLESIMVYFFQSMEDVGSDYAIFKSQDF



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**FIGURE 251**

GGGGCAGCGCAGGGCAGACGGCGGCAGGAGAAGCAAGATGAATGCAGGCTCAGATCCTGTGGTCATCGTCTCGGC  
GGCGCGGACCATCATAGGTTCCCTTCAATGGTGCCTTAGCTGCTGTTCCGTGCCAGGACCTGGGCTCCACTGTCA  
CAAAGAAGTCTTGAAGAGGGCCACTGTGGCTCCGGAAGATGTGTCTGAGGTCATCTTTGGACATGTCTTGGCAGC  
AGGCTGTGGGCAGAAATCCTGTGTAGACAAGCCAGTGTGGGTGCAGGAATCCCCTACTCTGTTCCAGCATGGAGCTG  
CCAGATGATCTGTGGGTGAGGCCTAAAAGCTGTGTGCCTTGCAGTCCAGTCAATAGGGATAGGAGACTCCAGCAT  
TGTGGTTGCAGGAGGCATGGAAAATATGAGCAAGGCTCCTCACTTGGCTTACTTGAGAACAGGAGTAAAGATAGG  
TGAGATGCCACTGACTGACAGTATACTCTGTGATGGTCTTACAGATGCATTTCACTGTCATATGGGTATTAC  
AGCTGAAAATGTAGCCACAAAATGGCAAGTGAGTAGAGAAGATCAGGACAAGGTTGCAGTTCTGTCCCAGAACAG  
GACAGAGAATGCACAGAAAGCTGGCCATTTTGACAAAGAGATTGTACCAAGTTTGGTGTCAACTAGAAAAGGTCT  
TATTGAAGTTAAAACAGATGAGTTTCCCTCGCCATGGGAGCAACATAGAAGCCATGTCCAAGCTAAAGCCTTACTT  
TCTTACTGATGGAACGGGAACAGTCAACCCAGCCAATGCTTCAGGAATAAATGATGGTGTGCAGCTGTTGCTCT  
TATGAAGAAGTCAGAAGCTGATAAACGTGGGCTTACACCTTTAGCACGGATAGTTTCCCTGGTCCCAAGTGGGTGT  
GGAGCCTTCCATTATGGGAATAGGACCAATTCCAGCCATAAAGCAAGCTGTTACAAAAGCAGGTTGGTCACTGGA  
AGATGTTGACATATTTGAAATCAATGAAGCCTTTGCAGCTGTCTCTGCTGCAATAGTTAAAGAACTTGGATTAAA  
CCCAGAGAAGGTCAATATTGAAGGAGGGGCTATAGCCTTGGGCCACCTCTTGGAGCATCTGGCTGTGCAATTCT  
TGTGACCCTGTTACACACACTGGAGAGAATGGGCAGAAGTCGTGGTGTGTCAGCCCTGTGCATTGGGGGTGGGAT  
GGGAATAGCAATGTGTGTTTCAAGAGAGAATGAACAATGTGTGTTTCAAGAGAGAATGAATTGCTTAACTTTGAACAAC  
CTCAATTTCTTTTAACTAATAAAGTACTAGGTTGCAATATGTGAAATCAGAGGACCAAGTACAGATGGAAAC  
CATTTCTACATCACAAAACCCAAGTTTACAGCTTGTACTTTACTTTAATGTGTAATACTCACTCACGGTACA  
AGACAATTGCATTTAACATTGTTATAAATAAAAGGAACATCAGATCAATCATTAATAAAAAAAAAA

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**FIGURE 252**

MNAGSDPVVIVSAARTIIGSFNGALAAVPVQDLGSTVIKEVLKRATVAPEDVSEVIFGHVLAAGCGQNPVRQASV  
GAGIPYSVPAWSCQMICGSGLKAVCLAVQSIGIGDSSIVVAGGMENMSKAPHLAYLRTGVKIGEMPLTDSILCDG  
LTDAFHNCHMGITAENVATKWQVSREDQDKVAVLSQNRTEAQAAGHFDKEIVPVLVSTRKGLIEVKTDEFPRHG  
SNIEAMSKLKPYPFLTDGTGTVTPANASGINDGAAVALMKKSEADKRGLTPLARIVSWSQVGVEPSIMGIGPIPA  
IKQAVTKAGWSLEDVDIFEINEAFAAVSAAIVKELGLNPEKVNIEGGAIALGHPLGASGCRIILVTLHTLERMGR  
SRGVAALCIGGGMGIAMCVQRE

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**FIGURE 253**

AATCGCGAAACCCGCGAGCGGCGCGCTGGCTATCGAGCGAGCGGGGCGGAACCGGGAGTTGCGCCGCCGCTCGG  
GCGCCGGGCTCCGTCGCGGCCGCGAGCCCCGCGGGTCGCCCTCCCGTGCCCTCGCCCGCGGACACCCTGGCCGTGGA  
CACCCTGGCCGTGGGCACCCGCGGGGCGCGGCGCGGGCGCTGCGCGGCGGCGGCGGGCGGCATGAAGGTCACGTCG  
CTCGACGGGCGCCAGCTGCGCAAGATGCTCCGCAAGGAGGCGGCGGCGCGCTGCGTGGTGCTCGACTGCCGGCCCC  
TATCTGGCCTTCGCTGCCTCGAACGTGCGCGGCTCGCTCAACGTCAACCTCAACTCGGTGGTGCTGCGGCGGGCC  
CGGGGCGGCGCGGTGTGCGCGCGCTACGTGCTGCCCGACGAGGCGGCGCGCGCGGCTCCTGCAGGAGGGCGGC  
GGCGGCGTTCGCGGCCGTGGTGGTGCTGGACCAGGGCAGCCGCCACTGGCAGAAGCTGCGAGAGGAGAGCGCCGCG  
CGTGTCGTCTCACCTCGCTACTCGCTTGCCCTACCCGCGGCCCCGCGGGTCTACTTCCTCAAAGGGGGATATGAG  
ACTTTCTACTCGGAATATCCTGAGTGTTGCGTGGAATGTAAACCCATTTCACAAGAGAAGATTGAGAGTGAGAGA  
GCCCTCATCAGCCAGTGTGGAACACAGTGGAATGTTCAGCTACAGGCCAGCTTATGACCAGGGTGGCCCCAGTT  
GAAATCCTTCCCTTCTCTACCTTGGAAGTGCCTACCATGCATCCAAGTGCGAGTTCTCGCCAACCTGACATC  
ACAGCCCTGCTGAATGTCTCCCGACGGACCTCCGAGGCGCTGCATGACCCACCTACACTACAAATGGATCCCTGTG  
GAAGACAGCCACACGGCTGACATTAGCTCCCACTTCAAGAAGCAATAGACTTCATTGACTGTGTGAGGAAAAG  
GGAGGCAAGGTCCTGGTCCACTGTGAGGCTGGGATCTCCCGTTCACCCACCATCTGCATGGCTTACCTTATGAAG  
ACCAAGCAGTTCCGCTGAAGGAGGCTTTCGATTACATCAAGCAGAGGAGGAGCATGGTCTCGCCCAACTTTGGC  
TTCATGGGCCAGCTCCTGCAGTACGAATCTGAGATCCTGCCCTCCACGCCCAACCCCCAGCCTCCCTCCTGCCAA  
GGGGAGGCAGCAGGCTCTTCACTGATAGGCCATTTGCAGACACTGAGCCCTGACATGCAGGGTGCCTACTGCACA  
TTCCCTGCCTCGGTGCTGGCACCGGTGCCTACCCACTCAACAGTCTCAGAGCTCAGCAGAAGCCCTGTGGCAACG  
GCCACATCCTGCTAAACTGGGATGGAGGAATCGGCCCAGCCCCAAGAGCAACTGTGATTTTTGTTTTTAAGACT  
CATGGACATTTATACCTGTGCAATACTGAAGACCTCATTCTGTCTATGCTGCCCCAGTGAGATAGTGAGTGGTCA  
CCAGGCTTGCAAATGAACCTCAGACGGACCTCAGGGTAGGTTCTCGGGACTGAAGGAAGGCCAAGCCATTACGGG  
AGCACAGCATGTGCTGACTACTGTACTTCCAGACCCCTGCCCTCTTGGGACTGCCCAGTCCTTGACCTCAGAQT  
TCGCCTTTTCATTTCAAGCATAAGCCAATAAATACCTGCAGCAACGTGGGAGAAAGAAGTTGCTGGACCAGGAGA  
AAAGGCAGTTATGAAGCCAATTCATTTTGAAGGAAGCACAAATTTCCACCTTATTTTTTGAACCTTTGGCAGTTTCA  
ATGTCTGTCTCTGTTGCTTCGGGGCATAAGCTGATCACCGTCTAGTTGGGAAAGTCACCCTACAGGGTTTGTAGG  
GACATGATCAGCATCCTGATTTGAACCCTGAAATGTTGTGTAGACACCCTCTTGGGTCCAATGAGGTAGTTGGTT  
GAAGTAGCAAGATGTTGGCTTTTCTGGATTTTTTTTGCCATGGGTTCTTCACTGACCTTGGACTTTGGCATGATT  
CTTAGTCATACTTGAACCTGTCTCATTCCACCTCTTCTCAGAGCAACTCTTCCTTTGGGAAAAGAGTTCTTCAGA  
TCATAGACCAAAAAAGTCATACCTTCGAGGTGGTAGCAGTAGATTCCAGGAGGAGAAGGGTACTTGCTAGGTATC  
CTGGGTCACTGGCGGTGCAAACCTGGTTTCCTCAGCTGCCTGTCTTCTGTGTGCTTATGTCTCTTGTGACAATTG  
TTTTTCTCCCTGCCCTTGAGGTTGTCTCAACTGTGGACTTCTGGGATTTCAGATTTTGCAACGTGGTACTAC  
TTTTTTTTCTTTTTGTCTGTTAGTTATTTCTCCAGGGGAAAAGGCAATAATTTCTAAGACCCGTGTGAATGTGA  
AGAAAAGCAGTATGTTACTGTTGTTGTTGTTGTTCTTGTTTTTATATGTAAATAAAAAATAGTGAAAGGAG

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**FIGURE 254**

MKVTSLDGRQLRKMLRKEAAARCVVLD CRPYLAFAASNVRGSLNVNLNSVVLRRARGGAVSARYVLPDEAARARL  
LQEGGGGVA AVVLDQGSRHQKLREESAARVLT SLLACLPAGPRVYFLKGGYETFYSEYPECCVDVKPISQEK  
IESERALISQCGKPVVNVSYRPAYDQGGPVEILPFLYLGSAYHASKCEFLANLHITALLNVSRRRTSEACMTHLHY  
KWIPVEDSHTADISSHFQE AIDFIDCVREKGGKVLVHCEAGISRSPTICMAYLMKTKQFRLKEAFDYIKQRRSMV  
SPNFGFMGQLLQYESEILPSTPNPQPPSCQGEAAGSSLIGHLQTLSPDMQGAYCTFPASVLAPVPTHSTVSELSR  
SPVATATSC

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**FIGURE 255**

TTCTCACTATACTGGTCCTGAGGAAAGGGCTTCTGTGAACTGCGGTTTTTAGTTTTTATTGTGGTTCTTAGTTCT  
CATGAGACCCCTCTTGAGGATATGTGCCTATCTGGTGCCTCTGCTCTCCACTAGTTGAGTGAAAGGAAGGAGGTA  
ATTTACCACCATGTTTGGTTCCCTGTTTATAAGATGTTTTAAGAAAGATTTGAAACAGATTTTCTGAAGAAAGCAG  
AAGCTCTCTTCCCATTAATGACTTCGGAAATCACTTATGCTGAAGTGAGGTTCAAAAAATGAATTCAAGTCCTCAGG  
CATCAACACAGCCTCTTCTGCAGCTTCCAAGGAGAGGACTGCCCCTCACAAAAGTAATACCGGATTCCCCAAGCT  
GCTTTGTGCCTCACTGTTGATATTTTTCTGCTATTGGCAATCTCATTCTTTATTGCTTTTGTCAATTTCTTTCA  
AAAATATTCTCAGCTTCTTGAAAAAAGACTACAAAAGAGCTGGTTCATACAACATTGGAGTGTGTGAAAAA  
TATGCCCCGTGAAGAGACAGCCTGGAGCTGTTGCCCAAAGAATTGGAAGTCATTTAGTTCCAAGTCTACTTTAT  
TTCTACTGAATCAGCATCTTGGCAAGACAGTGAGAAGGACTGTGCTAGAATGGAGGCTCACCTGCTGGTGATAAA  
CACTCAAGAAGAGCAGGATTTTCATCTTCCAGAATCTGCAAGAAGAATCTGCTTATTTTGTGGGGCTCTCAGATCC  
AGAAGGTCAGCGACATTGGCAATGGGTTGATCAGACACCATAACAATGAAAGTTCACATTCTGGCATCCACGTGA  
GCCCAGTGATCCCAATGAGCGCTGCGTTGTGCTAAATTTTCGTAAATCACCCAAAAGATGGGGCTGGAATGATGT  
TAATTGTCTTGGTCCTCAAAGGTCAGTTTGTGAGATGATGAAGATCCACTTATGAACTGAACATTCTCCATGAAC  
AGGTGGTTGGATTGGTATCTGTCATTGTAGGGATAGATAATAAGCTCTTCTTATTCATGTGTAAGGGAGGTCCAT  
AGAATTTAGGTGGTCTGTCAACTATTCTACTTATGAGAGAATTGGTCTATACATTGACTGATTCACTTTTTTCATA  
AAGTGAGCATTATTTGAGCATTTTTTCATGTGCCAGAGCCTGTACTGGAGGCCCCCATTGTGCACACAGGGAGAG  
AACATGAGTCTCTCTTAATTTTTATCTGGTTGCTAAAGAATTATTTACCATTAAATTATATGGTGTGGTGT

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**FIGURE 256**

MTSEITYAEVRFKNEFKSSGINTASSAASKERTAPHKSNTGFPKLLCASLLIFFLLLAISFFIAFVIFVQKYSQL  
LEKKTTELKLVHTTLECVKKNMPVEETAWSGCCPKNWKSFSSNCYFISTESASWQDSEKDCARMEHLLVINTQEEQ  
DFIFQNLQEEASAYFVGLSDPEGQRHWQWVDQTPYNESSTFWHPREPSDPNERCVVLNFRKSPKRWGWNDVNCLGP  
QRSVCEMMKIHL

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**FIGURE 257**

TTCCTCAGAAACGAGCAAACCTGAAAGCTACTCTCTCAGCTTCAGAGGGGAAAAAATGGTTGTAGATTTCTGGACT  
TGGGAGCAGACATTTCAAGAACTAATCCAAGAGGCAAAACCCCGGGCCACATGGACGCTGAAGTTGGATGGCAAC  
CTTCAGCTAGACTGCCTGGCTCAAGGGTGGAAGCAATACCAACAGAGAGCATTGGCTGGTTCCGGTGTTCTCTCC  
TGCCAGCGAAGTTGGGCTTCCGCCAAGTTGCAGATTCTGTGCCACACGTAAGTGGGAGCACTGGACATCCCAGGGT  
CAGGTGCGTATGAGGCTCTTTGGCCAAAGGTGCCAGAAAGTGCTCCTGGTCCCAATATGAGATGCCTGAGTTCTCC  
TCGGATAGCACCATGAGGATTCTGAGCAACCTGGTGACATATACTGAAGAAATACTATGGAAATGGCATGAGG  
AAGTCTCCAGAAATGCCAGTAATCCTGGAAGTGTCCTGGAAGGATCCCATGACACAGCCAATTGTGAGGCATGC  
ACTTTGGGCATATGTGGACAGGGCTTAAAAAGCTACATGACAAAGCCGTCCAAATCCCTACTCCCCACCTAAAG  
ACTGGGAATTCCTCACCTGGAATTGGTGCTGTGTACCTCGCAAACCAAGCCAAGAACCAGTCAGATGAGGCAAAA  
GAGGCTAAGGGGAGTGGGTATGAGAAATTAGGGCCCAGTCGAGACCCAGATCCACTGAACATCTGTGTCTTTATT  
TTGCTGCTTGTATTTATTGTAGTCAAATGCTTTACATCAGAAATGATGAAAAATAGGCTTGCCACTTTCTCTTATTT  
TAATTCCATGGTAGTCAATGAAGTGGCTGCCACTTTAATATACTGAAAAATTCATTTTGAGACCAAGCAGGATCA  
AGTTTGTAGAATAAACACTGGTTTCCTAGCTATCC TCTGAAAACAGTATGAAACATGACCAAGTACATAATGGAT  
TTAGTAATAAATATTGTGAATTGCTAAAAA

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**FIGURE 258**

MVVDFTWEQTFQELIQEAKPRATWTLKLDGNLQLDCLAQGKQYQQRAFGWFRCSSCQRSWASAKLQILCHTYW  
EHWTSQGQVRMRLFGQRCQKCSWSQYEMPEFSSDSTMRIISNLVQHILKKYYGNGMRKSPEMPVILEVSLEGSHD  
TANCEACTLGICGQGLKSYMTPSKSLLPHLKTGNSSPGIGAVYLANQAKNQSDEAKEAKGSGYEKLGP SRDPDP  
LNICVFILLLVFIVVKCFTSE



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**FIGURE 259**

GGGGCATT TTTGTGCCTGCCTAGCTATCCAGACAGAGCAGCTACCCTCAGCTCTAGCTGATACTACAGACAGTACA  
ACAGATCAAGAAAGTATGGGCAGTGACAACCTCGTTTGACACGGTTGCACGAAAAGATCCTGCAAAATCATT TTTGGAG  
GGAAGCGGCTTAGCCTTCTCTATAAGGGTAGTGTCCATGGATTCCGTAATGGAGTTTGTCTTGACAGATGTTGTA  
ATCAAGGGCCTACTCTAACAGTGATTTATAGTGAAGATCATATTATTGGAGCATATGCGGAAGAGAGTTACCAGG  
AAGGAAAGTATGCTTCCATCATCCTTTTTTGCACTTCAAGATACTAAAAATTCAGAATGGAAACTAGGACTATGTA  
CACCAGAAACACTGTTTTGTTGTGATGTTACAAAATATAACTCCCCAACTAATTTCCAGATAGATGGAAGAAATA  
GAAAAGTGATTATGGACTTAAAGACAATGGAAAATCTTGGACTTGCTCAAAATTTGTACTATCTCTATTTCAGGATT  
ATGAAGTTTTTCGATGCGAAGATTCACITGGATGAAAGAAAGATAAAAAGGGGTCATTGAGCTCAGGAAGAGCTTAC  
TGCTCTGCCTTGAGAACTTATGAACCATATGGATCCCTGGTTCAACAAATACGAATTCCTGCTGCTGGGTCCAATTG  
GAGCTGGGAAGTCCAGCTTTTTCAACTCAGTGAGGTCTGTTTTCCAAGGGCATGTAACGCATCAGGCTTTGGTGG  
GCACTAATACAACCTGGGATATCTGAGAAGTATAGGACATACTCTATTAGAGACGGGAAAGATGGCAAATACCTGC  
CGTTTTATTCTGTGTGACTCACTGGGGCTGAGTGAGAAAGAAGGCGGCCCTGTGCAGGGATGACATATTCTATATCT  
TGAACGGTAACATTCGTGATAGATACCAGTTTAATCCCATGGAATCAATCAAATTAATCATCATGACTACATTG  
ATTCCCCATCGCTGAAGGACAGAATTCATTGTGTGGCATTGTATTTGATGCCAGCTCTATTCAATACTTCTCCT  
CTCAGATGATAGTAAAGATCAAAAGAATTCGAAGGGAGTTGGTAAACGCTGGTGTGGTACATGTGGCTTTGCTCA  
CTCATGTGGATAGCATGGATTTGATTACAAAAGGTGACCTTATAGAAAATAGAGAGATGTGAGCCTGTGAGGTCCA  
AGCTAGAGGAAGTCCAAAGAAAACCTGGATTTGCTCTTTCTGACATCTCGGTGGTTAGCAATTATTCCTCTGAGT  
GGGAGCTGGACCCTGTAAAGGATGTTCTAATTCCTTTCTGCTCTGAGACGAATGCTATGGGCTGCAGATGACTTCT  
TAGAGGATTTGCCTTTTGAGCAAATAGGGAATCTAAGGGAGGAAATTATCAACTGTGCACAAGGAAAAAAATAGAA  
TATGTGAAAGGTTACGTAAATTTCTCACATCACAGAAGATTAAAATTCAGAAAGGAGAAAACACAGACCAAAG  
AGAAGTATCTAAGACCAAAGGGATGTGTTTTATTAATGTCTAGGATGAAGAAATGCATAGAACATTGTAGTACTT  
GTAAATAACTAGAAATAACATGATTTAGTCATAATTGTGAAAAATAGTAATAATTTTCTTGGATTTATGTTCTG  
TATCTGTGAAAAAATAAATTTCTTATAAACTCGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 260**

MAVTTRLTRLHEKILQNHFGGKRLSLLYKGSVHGFRNGVLLDRCCNQPTLTVIYSEDHIIGAYAEESYQEGKYA  
SIILFALQDTKISEWKLGLCTPETLFCCDVTKYNSPTNFQIDGRNRKVIMDLKTMENLGLAQNCTISIQDYEVFR  
CEDSLDERKIKGVIELRKSLLSALRTYEPYGSLVQQIRILLGPIGAGKSSFFNSVRSVFQGHVTHQALVGTNTT  
GISEKYRTYSIRDGKDGKYLPIFCDLGLSEKEGGLCRDDIFYILNGNIRDYQFNPMESIKLNHHDYIDSPSL  
KDRIHCVAFVFDASSIQYFSSQMIVKIKRIRRELVNAGVVHVALTHVDSMDLITKGDLEIERCEPVRSKLEEV  
QRKLGFAISDISVVSNYSSSEWELDPVKDVLILSALRRMLWAADDFLEDLPFEQIGNLREEIINCAQGKK

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**FIGURE 261**

GAGTGCGCACGCATCCTGCCCGCGGCGCGCGCAGGTGCGGTGCGTCTGTCTCGGGGGCGCGCTCGGGTACCTGTAC  
CCCACGTAGTCGCCGGTTACCGATCGGACTAAGTTCCAGTGGTGATTTACAAGTCAAGTTAAATATGTCCCCAGAA  
GTGGCCTTGAACCGAATATCTCCAATGCTCTCCCCTTTTCATATCTAGCGTGGTCCGGAATGGAAAAGTGGGACTG  
GATGCTACAACTGTTTGAGGATAACTGACTTAAATCTGGCTGCACATCATTGACTCCTGGGCCCAACTGTGAC  
CGATTTAAACTGCACATACCATATGCTGGAGAGACATTAAAGTGGGATATCATTTCATGCCCCAATACCCAGAA  
CTGCCCTCCCGATTTTATCTTTGGAGAAGATGCTGAATTCCTGCCAGACCCCTCAGCTTTGCAGAATCTTGCCCTCC  
TGGAATCCTTCAAATCCTGAATGTCTCTTACTTGTGGTGAAAGGAACTTGTGCAACAATATCACCAATTCCAATGT  
AGCCGCCCTCCGGGAGAGCTCCCGCCTCATGTTTGAATACCAGACATTACTGGAGGAGCCACAGTATGGAGAGAAC  
ATGGAAATTTATGCTGGGAAAAAACAACCTGGACTGGTGAATTTTCAGCTCGTTTCCTTTTGAAGCTGCCCCGTA  
GATTTTCAGCAATATCCCCACATACCTTCTCAAGGATGTAAATGAAGACCCCTGGAGAAGATGTGGCCCTCCTCTCT  
GTTAGTTTTGAGGACACTGAAGCCACCCAGGTGTACCCCAAGCTGTACTTGTACCTCGAATTGAGCATGCACTT  
GGAGGCTCCTCAGCTCTTCATATCCCAGCTTTTCCAGGAGGAGGATGTCTCATTGATTACGTTCTCAAGTATGC  
CACCTGCTCACCAACAAGGTGCAGTACGTGATTCAAGGGTATCACAAAAGAAGAGAGTATATTGCTGCTTTTCTC  
AGTCACTTTGGCACAGGTGTCGTGGAATATGATGCAGAAGGCTTTACAAAACCTCACTCTGCTGCTGATGTGGAAA  
GATTTTTGTTTTCTTGTACACATTGACCTGCCTCTGTTTTTCCCTCGAGACCAGCCAACTCTCACATTTAGTCC  
GTTTATCACTTTACCAACAGTGGACAGCTTTACTCCCAGGCCCAAAAAAATTATCCGTACAGCCCCAGATGGGAT  
GGAAATGAAATGGCCAAAAGAGCAAAGGGATGCCAGGGGAGCAGAGATGCCTGCAGCCCGTGGGAGCAAGTCCTG  
GCCTTTGCAGTTGCAAAAACCTGGCTGCAAGCTGCTCCAGCCCCAGAGGAACTGGCCAAGCTCCAGAGGGCCTCCT  
TGGAGGGCCTCAGAGGGAGAGAGAACTGCTCAGTAAATTTTGATCACTTTGGGCTTATTTCAAACCTTTGTCCCT  
CAGTTCCAGGAGGCAGCATTTGCCAATGGAAAGCTCTAGGAAACACCAGTCTTGAGAGGTGGCCAGCCAGACTGC  
CTGTCCACATGCGTGTGAGCACATACAGCCGCTTCTGGAAGCCGCTGGAATGTCTTACGGCAGCGTTTTGCT  
CACACAGCAGCTTTTGCACGCCCCAGGCAGCCCCGACTGCTGAAATCCAACCTTGAGCTGGCTGGTGGTCCCTGGA  
TCCTAGAGCCCTTCACTTCGGGTACTCCCTCTTTCTTGCTCTATTTCTTAGTTGGAAGAAATAAACTCACAAA  
TTATGGTGCAGTAATTTTCCGGGGAAGTAAAGCCTCAGGAATGCCACGCCTTTCTTCAAAGCCTTTGTCTCT  
GAGACCTCTTAAGTTCTAAGATTAAATGCCCTCGCTGTTTCTCCTCTGAAAAAAAAAAAAAAAAA

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**FIGURE 262**

MSPEVALNRISPMLSPFISSVVRNGKVGLDATNCLRITDLKSGCTSLTPGPNCDFKLHIPYAGETLKWDIIFNA  
QYPELPPDFIFGEDAEFLPDPSALQNLASWNPSNPECLLLVVKELVQQYHQFQCSRLRESSRLMFEYQTLLEEPQ  
YGENMEIYAGKKNNWTGEFSARFLLKLPVDFSNIPTYLLKDVNEDPGEDVALLSVSFEDTEATQVYPKLYLSPRI  
EHALGGSSALHIPAFPGGGCLIDYVPQVCHLLTNKVQYVIQGYHKRREYIAAFLSHFGTGVVEYDAEGFTKLTL  
LMWKDFCFLVHIDLPLFFPRDQPTLTFQSVYHFTNSGQLYSQAQKNYPYSPRWDGNEMAKRAKGCQGSRDACSPW  
EQVLAFAVAKTGCKLLQPQRNWPSSRGPPWRASEGERTAQ



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**FIGURE 263**

[illegible]

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**FIGURE 264**

MTPILTVLICLGLSLGPRTHVQAGHLPKPTLWAEPGSVITQGSPVTLRCQGGQETQEYRLYREKKTAPWITRIPO  
ELVKKGQFPIPSITWEHAGRYRCYYGSDTAGRSESSDPLELVVTGAYIKPTLSAQPSPVVNSGGNVTLQCDSQVA  
FDGFILCKEGEDEHPQCLNSQPHARGSSRAIFSVGPVSPSRRWWYRCYAYDSNSPYEWSLPSDLLELLVLGVSKK  
PSLSVQPGPIVAPEETLTLQCGSDAGYNRFVLYKDGGERDFLQLAGAQPQAGLSQANFTLGPVSRSYGGQYRCYGA  
HNLSSSEWSAPSDPLDILIAGQFYDRVSLSVQPGPTVASGENVTLLCQSQGWMQTFLLTKEGAADDPWRLRSTYQS  
QKYQAEFPMGPVTSAHAGTYRCYGSQSSKPYLLTHPSDPLELVVSGPSGGPSSPTTGPTSTSGPEDQPLTPTGSD  
PQSGLGRHLGVVIGILVAVILLLLLLLLLLFLILRHRROGKHWSTQRKADFQHPAGAVGPEPTDRGLQWRSSPAA  
DAQEENLYAAVKHTQPEDGVEMDTRSPHDEDPQAVTYAEVKHSRPRREMASPPSPLSGEFLDTKDRQAEEDRQMD  
TEAAASEAPQDVTYAQLHSLTLRRKATEPPPSQEGPSPAVPSIYATLAIH

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**FIGURE 265**

CAACATGGCGGCCGCGGTGGCGGGCGGCACCTGGGGCCTTGGGATCCCTGCATGCTGGCGGGCGCCCGCCTGGTGGC  
CGCTTGCACTGCGTGGCTCTGCCCCGGGGTTGAGGCTGCCCGGCTCGTTGGCAGGCCGGCGAGCGGGCCCCGGCGAT  
CTGGGCCCAGGGCTGGGTACCTGCGGCCGGGGGTCCGCCCCGAAAAGGGGCTACAGCTCTGAGATGAAGACGGA  
GGACGAGCTGCGGGTGGCGCACCTGGAGGAGGAGAACCGAGGAATTGTGGTGCTTGGGAATAAACAGAGCTTATGG  
CAAAAATTCAGTCAAGTAAAAATCTTATAAAAATGCTATCAAAAGCTGTGGATGCTTTGAAATCTGATAAGAAAGT  
ACGGACCATAATAATCAGGAGTGAAGTCCCAGGGATATTCTGTGCTGGTGCTGACCTTAAGGAAAGAGCCAAAAAT  
GAGTTCCAGTGAAGTTGGTCCCTTTGTCTCCAAAAATAAGAGCAGTGATTAAACGATATTGCTAATCTTCCAGTGCC  
AACAATTGCAGCAATAGATGGACTCGCTTTAGGTGGTGGTCTTGAACCTGGCTTTAGCCTGTGATATACGAGTAGC  
AGCTTCCTCTGCAAAAATGGGCCTGGTTGAAACAAAATTGGCGATTATTCTGGTGGAGGGGGACACAGCGATT  
GCCACGCGCCATTGGAATGTCCCTGGCCAAGGAGCTCATATTCTCTGCGCGAGTCCCTCGATGGCAAAGAAGCCAA  
AGCAGTGGGCTTAATCAGCCACGTTCTGGAACAGAACAGGAGGGAGACGCGGCCTACAGGAAGGCCTTGGACCT  
GGCGAGAGAGTTTTTACCTCAGGGACCTGTTGCAATGAGAGTGGCAAATTAGCAATTAATCAAGGGATGGAGGT  
CGATTTAGTAACAGGGTTAGCCATAGAAGAAGCTTGTTATGCTCAGACCATTCCAACAAAAGACAGACTTGAAGG  
TCTTCTTGCTTTTAAAGAGAAAAGGCCCCCTCGCTATAAAGGAGAATTAAAAGGAACAGAAATCTTAAGATGCCA  
ATGTAATAAATGTACTTCCTGGAAGTGTCTTTCGGATCCACTATATGCCTCAGCACATGGAACCTTAATGACCAA  
AGTGAAGAGCAGATTATTCATACGGTGTAAATAAGCGTCTGGAATGGACCCATCCGTGTACTTCATTCAAATGTGT  
AAATGTCATATTCATTGAGATTTATAAAGCTAGTAGTGTATAGTCAGAAACAGAATCAAAGTTAGATATACATTT  
TTAAATATTTACTGCATATGAGGCTTCTGTTAATTTTTTAATGTGAATAATTTATATATTGCACATTCTAGGAA  
TAATATTGATTGTATGTCTACTGTGCTGCATTAAGAAAATAAAATTTCTATATACCAAAAATGTGAAGTTATACC  
AAATAAAGTTTCTAAGTGATTAATGCATACGAACAGCTACATATACATATATCTAAACCTGAAAAATGAATTGAT  
ATTCTGAGTGAAAACCTACCTAATATAAATAAAATTAGTAAAAGAAAA

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**FIGURE 266**

MAAAVAAAPGALGSLHAGGARLVAACSAWLCPGLRLPGSLAGRRAGPAIWAQGWVPAAGGPAPKRGYSSEMKTED  
ELRVRHLEENRGIVVLGINRAYGKNSLSKNLIKMLSKAVDALKSDKKVRTIIIRSEVPGIFCAGADLKERAKMS  
SSEVGPFVSKIRAVINDIANLPVPTIAAIDGLALGGGLELALACDIRVAASSAKMGLVETKLAIIPGGGGTQRLP  
RAIGMSLAKELIFSARVLDGKEAKAVGLISHVLEQNQEGDAAYRKALDLAREFLPQGPVAMRVAKLAINQGMEVD  
LVTGLAIEEACYAQTIPTKDRLEGLLAFKEKRPPRYKGE



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**FIGURE 267**

GCCACACGGTCTTTGAGCTGAGTCGAGGTGGACCCTTTGAACGCAGTCGCCCTACAGCCGCTGATTCCCCCGCA  
TCGCCTCCCGTGGAAGCCCAGGCCCGCTTCGCAGCTTTCTCCCTTTGTCTCATAACC**ATGT**CCACCAACGAGAAT  
GCTAATACACCAGCTGCCCCGTCTTCACAGATTCAAGAACAAGGGAAAAGACAGTACAGAAATGAGGCGTCGCAGA  
ATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGATGCTGAAGAGGAGAAATGTAAGCTCATT  
CCTGATGATGCTACTTCTCCGCTGCAGGAAAACCGCAACAACAGGGCACTGTAAATTGGTCTGTTGATGACATT  
GTCAAAGGCATAAATAGCAGCAATGTGGAATAATCAGCTCCAAGCTACTCAAGCTGCCAGGAACTACTTTCCAGA  
GAAAAACAGCCCCCATAGACAACATAATCCGGGCTGGTTTGATTCCGAAATTTGTGTCTTCTTGGGCAGAACT  
GATTGTAGTCCCATTCAGTTTGAATCTGCTTGGGCACCTCACTAACATTGCTTCTGGGACATCAGAACAAACCAAG  
GCTGTGGTAGATGGAGGTGCCATCCCAGCATTCAATTTCTCTGTTGGCATCTCCCCATGCTCACATCAGTGAACAA  
GCTGTCTGGGCTCTAGGAAACATTGCAGGTGATGGCTCAGTGTTCGGAGACTTGGTTATTAAGTACGGTGCAGTT  
GACCCACTGTTGGCTCTCCTTGCAGTTCCTGATATGTCATCTTTAGCATGTGGCTACTTACGTAATCTTACCTGG  
ACACTTTCTAATCTTTGCCGCAACAAGAATCCTGCACCCCCGATAGATGCTGTTGAGCAGATTCTTCCTACCTTA  
GTTCCGGCTCCTGCATCATGATGATCCAGAAGTGTTAGCAGATACCTGCTGGGCTATTTCTACCTTACTGATGGT  
CCAAATGAACGAATTGGCATGGTGGTGAAAACAGGAGTTGTGCCCCAACTTGTGAAGCTTCTAGGAGCTTCTGAA  
TTGCCAATTGTGACTCCTGCCCTAAGAGCCATAGGGAATATTGTCACTGGTACAGATGAACAGACTCAGGTTGTG  
ATTGATGCAGGAGCACTCGCCGTCTTTCCCAGCCTGCTCACCAACCCCCAACTAACATTGAGAAGGAAGCTACG  
TGGACAATGTCAAACATCACAGCCGGCCGCCAGGACCAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATT  
CTTGTCAGTGTTCTCTCTAAGGCAGATTTTAAGACACAAAAGGAAGCTGTGTGGGCCGTGACCAACTATACCAGT  
GGTGGAACAGTTGAACAGATTGTGTACCTTGTTCACTGTGGCATAATAGAACCGTTGATGAACCTCTTAAGTGA  
AAAGATACCAAGATTATTCTGGTTATCCTGGATGCCATTTCAAATATCTTTCAGGCTGCTGAGAACTAGGTGAA  
ACTGAGAACTTAGTATAATGATTGAAGAATGTGGAGGCTTAGACAAAATTGAAGCTCTACAAAACCATGAAAAT  
GAGTCTGTGTATAAGGCTTCGTAAAGCTTAATTGAGAAGTATTTCTCTGTAGAGGAAGAGGAAGATCAAAACGTT  
GTACCAGAACTACCTCTGAAGGCTACACTTTCCAAGTTCAGGATGGGGCTCCTGGGACCTTTAACTTT**TAGATC**  
ATGTAGCTGAGACATAAATTTGTTGTGTACTACGTTTGGTATTTTGTCTTATTGTTTCTCTACTAAGAACTCTTT  
CTTAAATGTGGTTTGTACTGTAGCACTTTTTTACACTGAACTATACTTGAACAGTTCCAAGTGTACATACATAC  
TGTATGAAGCTTGTCTCTGACTAGGTTTCTAATTTCTATGTGGAATTTCTATCTTGCAGCATCCTGTAAATAA  
ACATTCAAGTCCACCCCTTAAAAAAA

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**FIGURE 268**

MSTNENANTPAARLHRFKNKGKDSTEMRRRRRIEVNVELRKAKKDDQMLKRRNVSSFPDDATSPLQENRNNQGTVN  
WSVDDIVKGINSSNVENQLQATQAARKLLSREKQPPIDNIIIRAGLIPKFVSFLGRDTCSP IQFESAWALTNIASG  
TSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSVFRDLVIKYGAVDPLLALLAVPDMSSLACGY  
LRNLTWTLNLCRNKNPAPPIDAVEQILPTLVRLHHDDPEVLADTCWAISYLTGPNRIGMVVKTGVPVQLVK  
LLGASELPIVTPALRAIGNIVTGTDEQTQVVIDAGALAVFPSLLTNPKTNIQKEATWTMSNITAGRQDQIQQVVN  
HGLVPFLVSVLSKADFKTQKEAVWAVTNYTSGGTVEQIVYLVHCGIIEPLMNLLTAKDTKIILVILDAISNIFQA  
AEKLGETEKL SIMIEECGGLDKIEALQNHENESVYKASLSLIEKYFSVEEEEDQNVVPETTSEGYTFQVQDGAPG  
TFNF

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**FIGURE 269**

AAAACAGCCGGGGCTCCAGCGGGAGAACGATAATGCAAAGTGCTATGTTCTTGGCTGTTCAACACGACTGCAGAC  
CCATGGACAAGAGCGCAGGCAGTGGCCACAAGAGCGAGGAGAAGCGAGAAAAGATGAAACGGACCCTTTTAAAAG  
ATTGGAAGACCCGTTTGAGCTACTTCTTACAAAATTCCTCTACTCCTGGGAAGCCCAAAACCGGCAAAAAAAGCA  
AACAGCAAGCTTTCATCAAGCCTTCTCCTGAGGAAGCACAGCTGTGGTCAGAAGCATTGACGAGCTGCTAGCCA  
GCAAAATATGGTCTTGCTGCATTTCAGGGCTTTTTTAAAGTCGGAATTCTGTGAAGAAAATATTGAATTCTGGCTGG  
CCTGTGAAGACTTCAAAAAAACCAAATCACCCCAAAGCTGTCTCAAAAGCAAGGAAAATATATACTGACTTCA  
TAGAAAAGGAAGCTCCAAAAGAGATAAACATAGATTTTCAAACCAAACTCTGATTGCCCAGAATATACAAGAAG  
CTACAAGTGGCTGCTTTACAAGTGGCAGAAAAGGGTATACAGCTTGATGGAGAACAACCTCTTATCCTCGTTTCT  
TGGAGTCAGAATTCTACCAGGACTTGTGTAAAAAGCCACAAATCACACAGAGCCTCATGCTACATGAAATGTAA  
AAGGGAGCCCAGAAATGGAGGACATTTTATTCTTTTTCCTGAGGGGAAGGACTGTGACCTGCCATAAAGACTGAC  
CTTGAATTCAGCCTGGGTGTTTCAAGAAACATCACTCAGAACTATTGATTCAAAGTTGGGTAGTGAATCAGGAAGC  
CAGTAACTGACTAGGAGAAGCTGGTATCAGAACAGCTTCCCTCACTGTGTACAGAACGCAAGAAGGGAATAGGTG  
GTCTGAACGTGGTGTCTCACTCTGAAAAGCAGGAATGTAAGATGATGAAAGAGACAATGTAATACTGTTGGTCCA  
AAAGCATTTAAATCAATAGATCTGGGATTATGTGGCCTTAGGTAGCTGGTTGTACATCTTCCCTAAATCGATC  
CATGTTACCACATAGTAGTTTTAGTTTAGGATTCAAGTAACTGAAAGTGTGTTACTATGTGCAAGGGTATTGAAGT  
TCTTATGACCACAGATCATCAGTACTGTTGTCTCATGTAATGCTAAACTGAAATGGTCCGTGTTTGATTGTTA  
AAAATGATGTGTGAAATAGAATGAGTGCTATGGTGTGAAACTGCAGTGTCGGTTATGAGTGCCAAAAATCTGT  
CTTGAAGGCAGCTACACTTTGAAGTGGTCTTTGAATACTTTTAATAAATTTATTTTGATAAATAATATTG

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**FIGURE 270**

MQSAMFLAVQHDCRPMDKSAGSGHKSEEKREKMKRTLLKDWKTRLSYFLQNSSTPGKPKTGKKSKQQAFIKPSPE  
EAQLWSEAFDELLASKYGLAAFRFLKSEFCEENIEFWLACEDFKKTKSPQKLSSKARKIYTDFIEKEAPKEINI  
DFQTKTLIAQNIQEATSGCFTTAQKRVYSLMENNSYPRFLESEFYQDLCKKPQITTEPHAT

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**FIGURE 271**

ACCCAGGGTCCGGCCTGCGCCTTCCC GCCAGGCCTGGACACTGGTTCAACACCTGTGACTTCATGTGTGCGCGCC  
GGCCACACCTGCAGTCACACCTGTAGCCCCCTCTGCCAAGAGATCCATACCGAGGCAGCGTCGGTGGCTACAAGC  
CCTCAGTCCACACCTGTGGACACCTGTGACACCTGGCCACACGACCTGTGGCCGCGGCCTGGCGTCTGCTGCGAC  
AGGAGCCCTTACCTCCCCCTGTTATAACACCTGACAGCCACCTAACTGCCCCCTGCAGAAGGAGCAATGGCCTTGGC  
TCCTGAGAGGTAAGAGCCCCGGGCCACCTCTCCAGATGCCAGTCCCCGAGCGCCCTGCAGCCGGCCCTGACTCTC  
CGCGGCCGGGCACCCGAGGGCAGCCCCACGCGTGCTGTTCCGGAGAGTGGCTCCTTGGAGAGATCAGCAGCGGCT  
GCTATGAGGGGCTGCAGTGGCTGGACGAGGCCCGCACCTGTTTCCGCGTGCCCTGGAAGCACTTCGCGCGCAAGG  
ACCTGAGCGAGGCCGACGCGCGCATCTTCAAGGCC TGGGCTGTGGCCCCGCGGCAGGTGGCCGCCTAGCAGCAGGG  
GAGGTGGCCCCGCCCCCGAGGCTGAGACTGCGGAGCGCGCCGGCTGGAAAACCAACTTCCGCTGCGCACTGCGCA  
GCACGCGTCGCTTCGTGATGCTGCGAGATAACTCGGGGGACCCGGCCGACCCGCACAAGGTGTACGCGCTCAGCC  
GGGAGCTGTGCTGGCGAGAAGGCCCAGGCACGGACCAGACTGAGGCAGAGGCCCCCGCAGCTGTCCCACCACCAC  
AGGGTGGGCCCCCAGGGCCATTCCTGGCACACACATGCTGGACTCCAAGCCCCAGGCCCCCTCCCTGCCCCAG  
CTGGTGACGAGGGGGACCTCCTGCTCCAGGCAGTGCAACAGAGCTGCCTGGCAGACCATCTGCTGACAGCGTCAT  
GGGGGGCAGATCCAGTCCCAACCAAGGCTCCTGGAGAGGGACAAGAAGGGCTTCCCCTGACTGGGGCCTGTGCTG  
GAGGCCCAGGGCTCCCTGCTGGGGAGCTGTACGGGTGGGCAGTAGAGACGACCCCCAGCCCCGGGCCCCAGCCG  
CGGCACTAACGACAGGCGAGGCCGCGGCCCCAGAGTCCCCCGACCCAGGCAGAGCCGTACCTGTACCCCTCCCCAA  
GCGCCTGCACCGCGGTGCAAGAGCCCAGCCCAGGGGCGCTGGACGTGACCATCATGTACAAGGGCCGCACGGTGC  
TGCAGAAGGTGGTGGGACACCCGAGCTGCACGTTCTATACGGCCCCCAGACCCAGCTGTCCGGGCCACAGACC  
CCCAGCAGGTAGCATTCCCCAGCCCTGCCGAGCTCCCGACCAGAAGCAGCTGCGCTACACGGAGGAAGTGTGCTG  
GGCACGTGGCCCCCTGGGTGTCACCTGGAGCTTCGGGGGCCACAGCTGTGGGCCCGGCGCATGGGCAAGTGCAAGG  
TGTAAGTGGGAGGTGGGCGGCCCCCAGGCTCCGCCAGCCCCCTCCACCCAGCCTGCCTGCTGCCTCGGAAGTGTG  
ACACCCCCATCTTCGACTTCAGAGTCTTCTTCGAGAGCTGGTGAATTCCGGGCACGGCAGCGCCGTGGCTCCC  
CACGCTATACCATCTACCTGGGCTTCGGGCAGGACCTGTGAGCTGGGAGGCCCAAGGAGAAGAGCCTGGTCCTGG  
TGAAGCTGGAACCCTGGCTGTGCCGAGTGCACCTAGAGGGCACGCAGCGTGAGGGTGTGTCTTCCCTGGATAGCA  
GCAGCCTCAGCCTCTGCCTGTCCAGCGCCAACAGCCTCTATGACGACATCGAGTGCTTCCTTATGGAGCTGGAGC  
AGCCCGCCTAGAACCCAGTCTAATGAGAACTCCAGAAAGCTGGAGCAGCCCACCTAGAGCTGGCC

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**FIGURE 272**

MPVPERPAAGPDSRPGRRAAPRVLFGEWLLGEISSGCYEGQLQWLDEARTCFRVPWKHFARKDLSEADARIFKA  
WAVARGRWPPSSRGGGPPPEAETAERAGWKTNFRCLRSTRRFVMLRDNSGDPADPHKVYALSRELCWREGPGTD  
QTEAEAPAAVPPPQGGPPGPFLAHTHAGLQAPGPLPAPAGDEGDLQLQAVQQSCLADHLLTASWGADPVPTKAPG  
EGQEGPLPLTGACAGGPGLPAGELYGWAVETTPSPGPQPAALTTGAAAPESPHQAEPYLSPPSPSACTAVQEPPSPG  
ALDVTIMYKGRTVLQKVVGHPSCFTLYGPPDPAVRATDPQQVAFPPSPAELPDQQLRYTEELLRHVAPGLHLELR  
GPQLWARRMGKCKVYWEVGGPPGSASPSTPACLLPRNCDTPIFDFRVFFRELVEFRARQRRGSPRYTIYLGFGQD  
LSAGRPKEKSLVLVKLEPWLCRVHLEGTQREGVSSLDSSSLSLCLSSANSYDDIECFLELEQPA

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**FIGURE 273**

AGTGTGGTTTTAGTTTTTCTAAGAAGTGGCGTGGTTTTGGGGCTTTATATCCGGGAGGAGCATATGTACGCAAAT  
CCTGGGGCGTTTTGCAAACCCGGATCCGGGGCGTCTGGCCCCATGCCCGGCCGGGCGTTTTGAGGGCTACTGCCACG  
CAGCGTTTTCTGGAGCCTGCCGGCTGGTGCCCTGGTGGCCTTTATCTCTGTCCCCCTTTGTCTCTTTATCTCAGG  
CTCTCCAGGAGGCCGGGGGGCCACTCCGCCTATCGCTCCCCCTCGGCTACGCTGCCACTCCAATGCCCCGCAGGT  
CGCGAGCTGCTGTTCTTTGAAAGGCGCCGGAGAACCAGGGGCGTCCCGCGCCACCTCTGACTCGGAGCAGCGCCG  
AGCACTGACGCTCCCGCCCTTGGGCAAGGACGCCAGTGCGCCCGCGCGCTCCCTCTGCGCGGCAGCCCGTTCGCG  
GGCCCTCAAGGGGAAGCCAGGCCAGGATGGCCCCGGGTGCGCGGTGGCCGGGCTCCTGTTGCTGGCGGCCGCC  
GGCCTCGGAGGAGTGGCGGAGGGGCCAGGGCTAGCCTTCAGCGAGGATGTGCTGAGCGTGTTCGGCGCGAATCTG  
AGCCTGTGCGCGGCGCAGCTCCAGCACTTGCTGGAGCAGATGGGAGCCGCTCCCGCGTGGGCGTCCCGGAGCCT  
GGCCAGCTGCACTTCAACCAGTGTTTAACTGCTGAAGAGATCTTTTCCCTTCATGGCTTTTCAAATGCTACCCAA  
ATAACCAGCTCCAAATTCTCTGTCTATCTGTCCAGCAGTCTTACAGCAATTGAACTTTCACCCATGTGAGGATCGG  
CCCAAGCACAAAACAAGACCAAGTCATTGAGAAGTTTGGGGATATGGATTCTGTGTCAGTGACGATTATTAATCTG  
GCATCTCTCCTCGGATTGATTTTGAATCCACTGATAAAGAAATCTTATTTCCCAAAGATTTTGACCTTTTTTG  
GGGCTGGCTATTGGGACTCTTTTTTCAAATGCAATTTTCCAACCTTATTCCAGAGGCATTGGATTGATCCCAA  
GTCGACAGTTATGTTGAGAAGGCAGTTGCTGTGTTTGGTGGATTTTACCTACTTTTCTTTTTTGAAAGAATGCTA  
AAGATGTTATTAAAGACATATGGTCAGAATGGTCATACCCACTTTGGAAATGATAACTTTGGTCTCTAAGAAAA  
ACTCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTATGCAAATCCTGCTGTACAGAAGCTAAT  
GGACATATCCATTTTGATAATGTCAGTGTTGATCTCTACAGGATGGAAAAAAGAGCCAAAGTTCATGTACCTGT  
TTGAAGGGGCCCCAACTGTCAGAAATAGGGACGATTGCCTGGATGATAACGCTCTGCGATGCCCTCCACAATTTT  
ATCGATGGCCTGGCGATTGGGGCTTCTGACCTTGTCTCTCCTTCAGGGACTCAGTACTTCCATAGCAATCCTA  
TGTGAGGAGTTTCCCCACGAGTTAGGAGACTTTGTGATCTACTCAATGCAGGGATGAGCACTCGACAAGCCTTG  
CTATTCAACTTCCCTTTCTGCATGTTTCTGCTATGTTGGGCTAGCTTTTGGCATTTTGGTGGGCAACAATTTGCT  
CCAAATATTATATTGCACTTGCTGGAGGCATGTTTCTCTATATTTCTCTGGCAGATATGTTTCCAGAGATGAAT  
GATATGCTGAGAGAAAAAGTAACTGGAAGAAAAACCGATTTACCTTCTTCATGATTCAGAATGCTGGAATGTTA  
ACTGGATTACAGCCATTCTACTCATTACCTTGATGTCAGGAGAAATCGAATTGGAGTAAATAGAAAAATGGAAGAT  
GGTGTGTTAATAAAGGCATTTAATAGATAAAAACATCTCCAAAAAGGATTTGAAGCTGATCCTATTTAGTTAA  
AAAGATAATTTTGCTTTCAACTGTAGGTCCAGAAAACATAATTATTGGCATCAGTCTGTGAAATAGTCCATTATTT  
GTTGTTAAAAATGCTTCAAAAGGTTTTAGTGTGAGTCTGAGATGCCTGGTATATAGGAGCCTTTGGGAAATACT  
TATTTTTCAGTATTCCATGCATATTAGATATCACCATGAAGCAAGAGACATGCATTCTATAATCATGTAGACACT  
CAGACTCAGGGGAAAAATACAAGTTATATCCTGAAAGCCTTTAAACTCTATGGTAGGATCAAAGATTCAAATGGT  
TTCAGAGAGGTTTTATTCAATTAATTTGTTCTAGTGCTTTCAAGAGCAAGTACATCAAAATGTAGAAGGTAAAA  
TGATATGCAACACTAATATAAATATTCCAAGTCTTTAAGGAGCCAAAGAAAAAAGATTTCTCACAGCTTTTTG  
TTCTGTTTTGTATTTCAATTAGGAACTTGCAAGTATTATTTGAAAACCATTTCTAAAAATAATAGGAGTTAGGAAAT  
AAATAAAGTTTTGCTAGCCCTGCTAAGTTCAAGGCTTAGAGGCTTATCGCTAAGXTAAACTTCACCAGATTCCAC  
GAAAAGCTGGATAGCTTTTTTCTGACTTATGTTGTGGTTGCACCCCTCACAAATGGCAGAACAGTATGTAAAGC  
TGGTAACACCTCGGTTTCAGTGACCATGTGTTTGCTTTGTGAAGGTGAAGAATATGTTGGTTTTAGAGAAAGAAA  
TTGGATGTAATTTTATGCAATTTACTTTTAAAGACAAACATAACTATTTAGCAGAGAATATTTTAAATAAATGCAA  
AACAACAGCTGGACTGCTGTACATCAAGGACAGATTAAGTGGAAAACATATGTTCCCTTATGTGTGATTGAGAGCC  
ATTCAGAAAAGACTTCCCTTTGTGTTTCAAGCTATACCTTTCCATATGGTATACCTTGAAAAAATTAGCACACCAT  
GGTTATTTTTTCTACCTTTTATAAAAGACAGAGCCTGTTTACTCATTTAGAAGATAGAGAAAAATGGTCTAAATTT  
GAACATCCTAGATTACACTCCCAAGTCACTTAAGGTGATTTGATGGTGAGGAAAATGATTGACAAAGCCCAACA  
ATGATCTCAGGAATTACATTTTCCAACAGACCAAAAAATGTTTTCATGTAGCAGCAATGCAGATTTGGTGAATAT  
TTAATATATATTTTAGTATGTATTTCACTTTATGACTGACAATTAATAAATATTGTTTGGCCAAATAGTAAACAC  
CCTTTTGAAACCATGAAAAA

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**FIGURE 274**

MAPGRAVAGLLLLAAAGLGGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLSEQMGAASRVGVPEPGQLHFNQCL  
TAEEIFSLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPKHKTRPSHSEVWGYGFLSVTIINLASLLGLILT  
PLIKKSYFPKILTFFVGLAIGTLFSNAIFQLIPEAFGFDPKVDSYVEKAVAVFGGFYLLFFFERMLKMLLKTYGQ  
NGHTHFGNDNFGPQEKTHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVSLQDGKKEPSSCTCLKGPKLSEI  
GTIAWMITLCDALHNFIDGLAIGASCTLSLLQGLSTSIAILCEEFPHELGDVILLNAGMSTRQALLFNFLSACS  
CYVGLAFGILVGNNFAPNIIIFALAGGMFLYISLADMFPENMDMLREKVTGRKTDFTFFMIQNAGMLTGFTAILLI  
TLYAGEIELE



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**FIGURE 275**

TGATGTGATATGGCTGCAAGTGCCTTTGACCCCTTTGTCTCCCTTCCATAAACTGAAATACCTAAGCTGCTCCAA  
CCTCCTTTTTGTCTTTTGTTCATAAAATCCTTTCCCATTGCACATCAACTCCTGTCTCTCTTTGTACTGTCACTC  
TCATCTGTTGCTTTCCATTACACTGCCTTTAGCCACTCATCATTTTGTGCCTACACCACAGAAACCTCTGAATG  
TAATGGATGTTCTTACCAGAGGACAAGTCGTACAATGGTGGAGGAATAGGTTCTTCAAATAGGATCATGGACTTC  
TTGGAGGAGCCAATCCCTGGTGTAGGGACCTATGATGATTTCAATACAATTGATTGGGTGAGAGAGAAGTCTCGA  
GACCGGGATAGGCACCGAGAGATTACCAATAAAAGCAAAGAGTCAACATGGGCCTTAATTCACAGTGTGAGTGAT  
GCTTTTTCCGGCTGGTTGTTGATGCTCCTTATTGGGCTTTTATCAGGTTCTGTTAGCTGGTTTGATAGACATCTCT  
GCTCATTGGATGACAGACTTAAAGAAGGTATATGCACAGGGGGATTCTGGTTTAACCATGAACATTGTTGCTGG  
AACTCTGAGCATGTCACCTTTGAAGAGAGAGACAAATGTCCAGAGTGAATAGTTGGTCCCAGCTTATCATCAGC  
ACAGATGAGGGAGCCTTTGCCTACATAGTCAATTATTTATGTACGTCCTCTGGGCTCTCCTATTTGCCTTCCTT  
GCCGTATCTCTTGTCAAGGTGTTTGCCTTATGCCTGTGGCTCTGGAATCCCTGAGATAAAAACCTATCTTGAGT  
GTTTCATTATTAGGGGCTATTTGGGTAAGTGGACTCTGGTTATCAAAACCATCACCTGGTGTGGCAGTGTGCG  
TCTGGCTTGAGCCTGGGCAAAGAGGGCCCTCTAGTGCACGTGGCTTGCTGCTGTGGGAACATCCTGTGCCACTGC  
TTCAACAAATACAGGAAGAATGAAGCCAAGCGCAGAGAGGTCTTGTGCGCTGCAGCAGCAGCTGGTGTATCTGTA  
GCCTTTGGAGCACCTATAGGTGGAGTATTATTACGCCTTGAAGAGGTGAGCTACTATTTTCCCTCAAACATTG  
TGGCGTTCATTCTTTGCTGCCTTGGTGGCAGCATTACTCTACGCTCCATCAATCCATTGGGAACAGCCGCTG  
GTACTATTTATGTGGAGTTTACACCCCATGGCATCTCTTTGAGCTCGTGCCATTCTTCTGCTGGGCATATTT  
GGTGGTCTGTGGGGAGCACTGTTTATCCGCACAAACATTGCCTGGTGTGCGGAAGCGAAAGACCACCCAGTTGGGC  
AAGTATCCTGTTATAGAGGTACTCGTCGTGACAGCCATCACTGCCATCCTGGCTTTCCCAATGAATACACTCGG  
ATGAGCACAAGTGAGCTCATTCTGAGCTGTTTAAATGACTGTGGCCTTCTGGACTCCTCCAAGCTCTGTGATTAT  
GAGAACCCTTTCAACACAAGCAAAGGGGGTGAAGTGCCTGACAGACCGGCTGGCGTGGGAGTCTACAGTGCAATG  
TGGCAGCTGGCTTTAACTACTACTGAAAATTGTCTACTATATTCACCTTTGGCATGAAGATCCCTTCTGGC  
CTCTTTATCCCTAGCATGGCTGTTGGTGTATAGCAGGTGACTTCTAGGAGTAGGAATGGAACAGCTGGCTTAT  
TACCACCAGGAATGGACCGTCTTCAATAGCTGGTGTAGTACAGGGAGCTGATTGCATCACCCCGGCCCTTATGCA  
ATGGTTGGGGCTGCAGCCTGCTTAGGTGGGGTGACTCGGATGACTGTTTCTCTTGTGTCATAATGTTTGAAGT  
ACTGGTGGCTTAGAATACATCGTGCTCTGATGGCTGCAGCCATGACAAGCAAGTGGGTGGCAGATGCTCTTGGG  
CGGGAGGGCATCTATGATGCCACATCCGTCTCAATGGATACCCCTTCTTGAAGCCAAAGAAGAGTTTGCTCAT  
AAGACCTGGCAATGGATGTGATGAAACCCCGGAGAAATGATCCTTTGTTGACTGTCCTTACTCAGGACAGTATG  
ACTGTGGAAGATGTAGAGACCATAATCAGTGAAACCACTTACAGTGGCTTCCCAGTGGTGGTATCCCGGGAGTCC  
CAAAGACTTGTGGGCTTTGTCTCCGAAGAGATCTCATTATTTCAATTGAAAATGCTCGAAAGAAACAGGATGGG  
GTTGTTAGCACTTCCATCATTTATTTACGGAGCATTCTCTCCATTGCCACCATACACTCCACCCACTCTAAAG  
CTTCGGAACATCCTCGATCTCAGCCCTTCACTGTGACTGACCTTACACCCATGGAGATCGTAGTGGATATTTTC  
CGAAAGCTGGGACTGCGGCAGTGCCTGGTTACACACAACGGGCGATTGCTTGAATCATTACCAAAAAGGATGTG  
TTAAAGCATATAGCACAGATGGCGAACCAAGATCTGATTCCATTCTCTTCAACTTAGAATCATAGAGTTCTGGAT  
GTAAAGCGGGAAGGACATTACAGACCATGGATATGTTGTTTAAACGGTACCCAAAACACATTTTCCATATTTGGAT  
GGTGAAGTCACATTAGTGTGTTGTCTCTTTCTTACAAGTTAACAGTTGCACTACATAATCTCTGGAAATTAATT  
TTCTCTTTAGGAGAAATTATAGTTAGGCTTCCATGATGTTACATTAGGAAGATATCATGAAAAGATAAATAAGAT  
TGCTATGGTTTAATTATATTTGCTTTTTAAAGATTTTTTAACTTAAAAAGTAGTTAGCCAATATGCAATCACT  
GAAAACATGCAAGAGAAATTCACACCGTCTGACCTATAACCTGTAGGAAACCGACGAAAAAGTCACTCTTTTG  
GGATCTAACTGTTGTTACTGGAAGACGAAGGTAACTAAGGGGCTTTGCTTTTCAAACCAGAGAAAGGAAAGCCA  
GAAGGAAAAGAGTAATGGTATTTCTAGACTGTGAAGATTCAAGTTCAAATGTTATCCTTGTTCCTGTTACAATAT  
TTAGCATTATTAGTTTGTATGTGTGTATGTTTATGTTAATTTTAACTTCTGATTATAAGACAATGCTGCTTTGG  
TTAATCTCTTCTAAAGGAATTTA

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**FIGURE 276**

MDFLEELPIPGVGTYYDDFNTIDWVREKSRDRDRHREITNKSKESTWALIHVSDAFSGWLLMLLIGLLSGSLAGLI  
DISAHWMTDLKEGICTGGFWFNHEHCCWNSEHVTFEERDKCPEWNSWSQLIISTDEGAFAYIVNYFMYVLWALLF  
AFLAVSLVKVFAPYACGSGIPEIKTILSGFIIRGYLGKWTLVIKTITLVLA VSSGLSLGKEGPLVHVACCCGNIL  
CHCFNKYRKNEAKRREVLSAAAAAGVSVAFGAPIGGVLFSLLEEVSYFPLKTLWRSFFAALVAAFTLRSINPFGN  
SRLVLFYVEFHTPWHLFELVPFILLGIFGGLWGALFIRTNIAWCRKRKTTQLGKYPVIEVLVVTAITAILAFPNE  
YTRMSTSELISELFNDCGLLDSSKLC DYENRFNTSKGGELPDRPAGVGVSAMWQLALTLILKIVITIFTFGMKI  
PSGLFIPSMAGAIAGRLLGVGMEQLAYYHQEWTFVNSWCSQGADCITPGLYAMVGAAACLGGVTRMTVSLVIM  
FELTGGLLEYIVPLMAAAMTSKWVADALGREGIYDAHIRLNGYPFLEAKEEFAHKTAMDVMKPRRNDPLLTVL TQ  
DSMTVEDVETI ISETTYSGF PVVVSRESQRLVG FVLRRDLIISIENARKKQDGVVSTSI IYFTEHSPPLPPYTPP  
TLKLRNILDLSFFTVDLTPMEIVVDIFRKLGLRQCLVTHNGRLLGIITKKDVLKHIAQMANQDPDSILFN

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**FIGURE 277**

CCACGCGTCCGGTGCGGACGGGCGCGGACCACCTCCAGGGGCTAAGTGATCGATCTTGTACTCCGTGTTGCAGAT  
TACTATTTTTTTACACCATACGTGTATCCAGCCACATGGCCAGAAGATGACATCTTCCGACAAGCTATTAGTCTT  
CTGATTGTAACAAATGTTGGTGCTTACATCCTTTATTTCTTCTGTGCAACACTGAGCTATTATTTTGTCTTCGAT  
CATGCATTAATGAAACATCCACAATTTTTAAAGAATCAAGTCCGTCGAGAGATTAAGTTTACTGTCCAGGCATTG  
CCATGGATAAGTATTCTTACTGTTGCACTGTTCTTGTGCTGGAGATAAGAGGTTACAGCAAATTACATGATGACCTA  
GGAGAGTTTCCATATGGATTGTTTGAACCTTGTCGTTAGTATAATATCTTTCCTCTTTTTTCACTGACATGTTTCATC  
TACTGGATTACAGAGGCCCTTCATCATAGACTGGTATATAAGCGCCTACATAAACCTCACCATATTTGGAAGATT  
CCTACTCCATTTGCAAGTCATGCTTTTACCCTATTGATGGCTTTCCTCAGAGTCTACCTTACCATATATACCCT  
TTTATCTTTCCATTACACAAGGTGGTTTATTTAAGTCTGTACATCTTGGTTAATATCTGGACAATTTCCATTTCAT  
GACGGTGATTTTCGTGTCCCCCAAATCTTACAGCCATTTATTAATGGCTCAGCTCATCATACAGACCACCATATG  
TTCTTTGACTATAATTATGGACAATATTTCACTTTGTGGGATAGGATTGGCGGCTCATTCAAAAATCCTTCATCC  
TTTGAGGGGAAGGGACCGCTCAGTTATGTGAAGGAGATGACAGAGGGAAAGCGCAGCAGCCCTTCAGGAAATGGC  
TGTAAGAATGAAAAATTATCAATGGAGAGTTTACAAAGACTGAAATAGATTATTGCCCAGTTATTCTTAAGTAAG  
GACAAAGAAGGAAATATCATCGTATTTCTTTTTTTTAATAAGGAAAAAATAATCTCCATACAGTCAAGATACATA  
GTAAATGGTATCATTTGGAAATCAGCATCGTGGGCACTGCTGAGGAATGATCCTAGTGGTAGGTCAGAAGAAGAT  
GCTGTGAACACCAGGACTTTAATCTTATGCTTAAATGCCAGATGTTGTTTCGGGCCCCAACTTGTATTTCTAGCA  
GCAGATCTGTAGTTTGTATAGCCTCAACAACAATTTTAAATAAGATGGAGAATAAATTATTGAGGGGACTAGGCT  
ATATGCATTTGCCTTCATCCACCCATGTTTATTAAGAATCATTGTGCTTAATAATACCAAGACTAAGCACCATAA  
CCAAGAAATACTAATGTAAAGATTGTTTCTTGTTTCAGGAATGGTTAATTCTTCAACGTTGGTATGATAATGATA  
ACTTGTTTTGACTTGAATAAAGTACTACATCAGTGTGGAAAAAATTCTGATACATTAGCAGCTATGTAAATGAC  
CTAATTGATAGCAGGTGTAATAAGACTATCGTCTTCCTACACATAGGAGGCTCATTCTCTGGACACACTATCACC  
TATTACATTTTACTGATTAACAAATAAATTGGAATTTAAAAATATCGATATCACCATGATTTAATCCAGATCTGG  
GATTATGTAGCTAAACATTGTGATGATTATTTTAAAACCATTTTAAATAAGAGTAAAAATATGTGAATCTGG  
ATATATTTAAAAAAGAAATTTGATTGCCAGATAATATATTAGGCACTACTGATTTTTTTAGTTAAATTGATGCA  
CTACACTTTTGATGTTTGAAGTTACAACCTGTAATTTTTTTGTAAAGGAAATAATTGCCAAATACCTAGGCCCAT  
TGCTGACGATTAGTTCTAAATCTTATTCCTCCTCTTCTCCCCTCACTTTTCCCTACTTCTCTGCAAAAAGATT  
TAACAAATACATTATAAGGAAATGTGTGTTGTAAACAAATATATTGCAAAAACATAGTTTGTAAAGGCATTCTAT  
AAGCTATTTATGTAAATCAATAAAAGTTGATCATAATTAACTGTAAAAAAGGCGGC

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**FIGURE 278**

MDLVLRVADYYFFTPYVYPATWPEDDIFRQAISLLIVTNVGAYILYFFCATLSYYFVFDHALMKHPQFLKNQVRR  
EIKFTVQALPWISILTVALFLEIRGYSKLHDDLGEFPYGLFELVVSIIISFLFFTDMMFIYWHRGLHHRLVYKRL  
HKPHHIWKIPTPFASHAFHPIDGFLQSLPYHIYPFIFPLHKVVYLSLYILVNIWTISIHGDGDFRVPQILQPFING  
SAHHTDHHMFFDYNYGQYFTLWDRIGGSFKNPSSFEGKGPLSYVKEMTEGKRSSPSGNGCKNEKLFNGEFTKTE

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**FIGURE 279**

**ATGGATGAAACAGGAAATCTGACAGTATCTTCTGCCACATGCCATGACACTATTGATGACTTCCGCAATCAAGTG  
TATTCCACCTTGTACTCTATGATCTCTGTTGTAGGCTTCTTTGGCAATGGCTTTGTGCTCTATGTCCTCATAAAA  
ACCTATCACAAAGAAGTCAGCCTTCCAAGTATACATGATTAAATTTAGCAGTAGCAGATCTACTTTGTGTGTGCACA  
CTGCCCTCTCCGTGTGGTCTATTATGTTTACAAAAGGCATTTGGCTCTTTGGTGACTTCTTGTGCCGCTCAGCACC  
TATGCTTTGTATGTCAACCTCTATTGTAGCATCTTCTTTATGACAGCCATGAGCTTTTTCCGGTGCATTGCAATT  
GTTTTTCCAGTCCAGAACATTAATTTGGTTACACAGAAAAAGCCAGGTTTGTGTGTGTAGGTATTTGGATTTTT  
GTGATTTTGACCAGTTCTCCATTTCTAATGGCCAAACCACAAAAAGATGAGAAAAATAATACCAAGTGCTTTGAG  
CCCCACAAGACAATCAAATAAAATCATGTTTTGGTCTTGCAATTATGTGTCATTGTTTGTGGCTTTATCATC  
CCTTTTGTTATTATAATTGTCTGTTACACAATGATCATTTTGACCTTACTAAAAAAATCAATGAAAAAAATCTG  
TCAAGTCATAAAAAGGCTATAGGAATGATCATGGTCGTGACCGCTGCCTTTTGTAGTCAGTTTCATGCCATATCAT  
ATTCAACGTACCATTCACCTTCATTTTTTACACAATGAACTAAACCCTGTGATTCTGTCCTTAGAATGCAGAAG  
TCCGTGGTCATAACCTTGTCTCTGGCTGCATCCAATTGTTGCTTTGACCCTCTCCTATATTTCTTTTCTGGGGGT  
AACTTTAGGAAAAGGCTGTCTACATTTCAGAAAGCATTCCTTTGTCCAGCGTGACTTATGTACCCAGAAAGAAGGCC  
TCTTTGCCAGAAAAAGGAGAAGAAATATGTAAAGT**TAG****

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**FIGURE 280**

MDETGNLTVSSATCHDTIDDFRNQVYSTLYSMISVVGGFFGNGFVLYVLIKTYHKKSAFQVYMINLAVADLLCVCT  
LPLRVVYYVHKGIWLFGLCRLSTYALYVNLYCSIFFMTAMSEFFRCIAIVFPVQNINLVTQKKARFVCVGIWIF  
VILTSSPFLMAKPQKDEKNNTKCFEPPQDNQTKNHVLVLHYVSLFVGFIIPFVIIIVCYTMIILTLLKKSMKKNL  
SSHKKAIGMIMVVTA AFLVSFMPYHIQRTIHLHFLHNETKPCDSVLRMQKSVVITLSLAASNCCFDPLLYFFSGG  
NFRKRLSTFRKHSLSSTYVPRKKASLPEKGEEICKV

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**FIGURE 281**

GGCTTACCACAGCCTCAACTTCTCAGGCTCCAGCCATCCTCTCACCTCAGCCTCCCAAGTAGCTAGGACTACAGG  
CGTGTGCCACTGTGCCTGGCCTAATTTTATAATTTTAAATGTCTGTAAAGTAAGCAAAATGACTAGTTGAATTGT  
ACATTAAATATATCTAATCCCTAAGAGTTTATAATGGAAAGGGATCAAAACTTTTTCAATTGCGATAAAACTCAC  
ATAACAAAATTAACCATTTTAAAGTGAACAATTTAGTGGTATTTAGTGCATTCACAGTGTGTCGTCAGCCAACACC  
TGTATCTAGTTCCAAGACATTTTCATCTCCCCAAAAGGAGACCCCATACACGTGAAGCAGTCCCTCTCCCATCCC  
CCTCCTCCCATCCGCTAGCAACTGCTAATTTGCTTTTGTCTCTATGGATTTACCTGTTCTGGATATTTACATA  
AATGGAATTATACAATAAAGGACCGTTTGTCTTCTAATTTCTTCTACTAAGCATCCATGTTATAGCATATATCAGA  
CTTCATTCCCTTTATGACTGAATAATACTTTGCTGAATGGATATATCAGTGTTTTATTTGTCCTTTTCATCAGTTGG  
TGGACATTTGGGTTCTTTCTACCTTTTGGCTATTGTGACTAGTGGTGTGCAAACATTCATGTACAAGTTTTTGT  
TTGAATGCCTGTTGTCAGTTCTTCTAGATTTATAC TTAGAAGTGAATTGCTGGGTCATATGGTAATTTCTCTGT  
TTCAACTTTTTGAGAGACCACGAAACCGTTTTCCACAGTGGTGGCACCATTGACATGCCCACTAGAAATATATG  
AGAGTTCCATTTTCTTCACATCTTCTGACAGCTTTTGGGGTGTGGGATGATTCGTCTAATTGGGAAAATAAGT  
ACCTTATTTGGGCCTATATGGTATTTTAAATTCTGTGTGTCTGCTCCCAAACCTCTGTAGCCCTGCCCTCCCTTAT  
ATTGTGTATCCTGTTTCAGATTGTTTCCGTTTCTTCTGAGACACTGCATATACCCCTACATGTATCTGTGCTAGG  
CATACATCCCTGTAACCTTCATGGCATTTTTGTAAATGCTGTGTACCTGTTACGTATACTGAGTGGGAGTGTCTCA  
TTTGCTGTAGAACTCTCTGCATTAGTGTAGTGTCTGGCACACAGTAGCTGCTCAGGCATTTTTTAAAGTATATGAT  
TATTGGGAAAACCTACAGAGCTAGGGAGAGATCTGAAGAAATACTAGAAATTTTTTCTGCAAAGAAAACCTTTAGA  
AAATTGTTGACATCATCTGTGGCATGCAGCAAAAGTTGATGTAAAGGAACAGAAAGACCTATGGAGATAATGGG  
ATGTAATAACAGAAAACATACAGAAACAATTGGTTCTGAAATCAGTTAAGAGCAGAACTGGAATTCATACTCTGT  
GGAATGAATCAGCAATGTGGAAGGAGTAACAAGATTTTTTAAAAAGATTTTGAATTTAGGCTGGGTGCAGTGGCT  
CACGCCTGTAACCCCATCACTTTGGGAGGCCAGAGTAGGTGGATTGCTTCAACCCAGGCATTCGAGACTAGCCTG  
GACAGCATGGCAAAACCCCTATCTCTACAAAAAATAAAAAATTAGCCAGGTGTGGTGGCATGCGCCTGTAGTCCCA  
TCTACTTGGGAGGCTGAGGTGGATGGATCACCTGAGCCTGGGAAGTGGAGTTGCAGTAGGCTGAAGTCATGCCA  
CTGCACTCAAACCTGGCGGACAGAGTGAGACCCTATCTCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 282**

MYKFLFECLLSVLLDLYLEVELLGHMVISLFLQFERPRNRFPQWWHLTCPLEIYESSIFFTSSDSFLGCWDDSS  
NWENKYLIWAYMVFLILCVCSQTL



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**FIGURE 283**

GCCCCTTTCTTTCTCTCGTCGGCCCGAGAGCAGGAACACGATAACGAAGGAGGCCCAACTTCATTCAATAAGGA  
GCCTGACGGATTTATCCCAGACGGTAGAACAAAAGGAAGAATATTGATGGATTTTAAACCAGAGTTTTTAAAGAG  
CTTGAGAATACGGGGAAATTAATTTGTTCTCTACACATAGATAGGGTAAGGTTGTTTCTGATGCAGCTGAGA  
AAAATGCAGACCGTCAAAAAGGAGCAGGCGTCTCTTGATGCCAGTAGCAATGTGGACAAGATGATGGTCCTTAAT  
TCTGCTTTAACGGAAGTGTGAGAAGACTCCACAACAGGTGAGGACGTGCTTCTCAGTGAAGGAAGTGTGGGGAAG  
AACAAATCTTCTGCATGTCTGGAGGAAACGGGAATTCATTCTGATGAAAAGAAAGATGCTATGTATTGGGAAAAA  
AGGCGGAAAAATAATGAAGCTGCCAAAAGATCTCGTGAGAAGCGTCGACTGAATGACCTGGTTTTAGAGAACAAA  
CTAATTGCACTGGGAGAAGAAAACGCCACTTTAAAAGCTGAGCTGCTTTCCTAAAATTAAAGTTTGGTTTAATT  
AGCTCCACAGCATATGCTCAAGAGATTGAGAACTCAGTAATTCTACAGCTGTGTACTTTCAAGATTACCAGACT  
TCCAAATCCAATGTGAGTTCATTTGTGGACGAGCACGAACCCCTCGATGGTGTCAAGTAGTTGTATTTCTGTCAAT  
AAACACTCTCCACAAAGCTCGCTGTCCGATGTTTTCAGAAGTGTCTCAGTAGAACACACGCGAGGAGACTCTGTG  
CAGGGAAGCTGCAGAAGTCTGAAAACAAGTTCCAGATTATCAAGCAAGAGCCGATGGAATTAGAGAGCTACACA  
AGGGAGCCAAGAGATGACCGAGGCTCTTACACAGCGTCCATCTATCAAAACTATATGGGGAATTTCTTCTCTGGG  
TACTCACACTCTCCCCACTACTGCAAGTCAACCGATCCTCCAGCAACTCCCCGGGAACGTGCGAAACTGATGAT  
GGTGTGGTAGGAAAGTCATCTGATGGAGAAGACGAGCAACAGGTCCCCAAGGGCCCCATCCATTCTCCAGTTGAA  
CTCAAGCATGTGCATGCAACTGTGGTTAAAGTTCCAGAAGTGAATTCTCTGCCTTGCCACACAAGCTCCGGATC  
AAAGCCAAAGCCATGCAGATCAAAGTAGAAGCCTTTGATAATGAATTTGAGGCCACGCAAAAACCTTTCTCACCT  
ATTGACATGACATCTAAAAGACATTTTCAACTCGAAAAGCATAGTGCCCCAAGTATGGTACATTCTTCTCTTACT  
CCTTTCTCAGTGAAGTGAATAACATTCAAGATTGGTCTCTCAAATCGGAGCACTGGCATCAAAAAGAACTGAGT  
GGCAAAAACCTCAGAATAGTTTCAAACCTGGAGTTGTTGAAATGAAAGACAGTGGCTACAAAGTTTCTGACCCAGAG  
AACTTGTATTTGAAGCAGGGGATAGCAAACCTTATCTGCAGAGGTTGTCTCACTCAAGAGACTTATAGCCACACAA  
CCAATCTCTGCTTCAGACTCTGGGTAAATTACTACTGAGTAAGAGCTGGGCATTTAGAAAAGATGTCATTTGCAAT  
AGAGCAGTCCATTTTGTATTATGCTGAATTTTCACTGGACCTGTGATGTCATTTCACTGTGATGTGCACATGTTG  
TCTGTTTGGTGTCTTTTGTGCACAGATTATGATGAAGATTAGATTGTGTTATCACTCTGCCTGTGTATAGTCAG  
ATAGTCCATGCGAAGGCTGTATATATTGAACATTATTTTGTGTTCTATTATAAAGTGTGTAAGTTACCAGTTT  
CAATAAAGGATTGGTGACAAACACAGAAAAA

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**FIGURE 284**

MLRKMQTVKKEQASLDASSNVDKMMVLNSALTEVSEDSTTGEDVLLSEGSVGKNKSSACRRKREFIPDEKKDAM  
YWEKRRKNNEAAKRSREKRRLNDLVLENKLIALGEENATLKAELLSLKLKFLISSTAYAQEIQKLSNSTAVYFQ  
DYQTSKSNVSSFVDEHEPSMVSSSCISVIKHSPQSSLSDVSEVSSVEHTQESSVQGSCRSPENKFQIKQEPMEL  
ESYTREPRDDRGSYTASIYQNYMGNSFSGYSHSPPLLQVNRSSSNSPGTSETDDGVVGKSSDGEDEQQVPGPIH  
SPVELKHVHATVVKVPEVNSSALPHKLRIKAKAMQIKVEAFDNEFEATQKLSSPIDMTSKRHFELEKHSAPSMVH  
SSLTPFSVQVTNIQDWSLKSEHWHQKELSGKTQNSFKTGVVEMKD SGYKVSDPENLYLKQGIANLSAEVVSLKRL  
IATQPIASDSG

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**FIGURE 285**

CTGGGCCGGGGCTGGAGAGTGACCGTGGTCTGAGTGACCTGGGGCGGGCTGCGTGGGCCGGGGTGGGCCTCAAAG  
CCGGGCACCAGACGGGAGGGGGCGGCGCTCGGGCCGCGCGCTGCCCCGCGCCGGTCTTGCGGGCGGCGAGGCTGG  
GGCTGACTCCTGCCTCAGGATGCCGGGGAGGAAGAGGAGCGGGCCTTCTGGTGGCCCGCGAGGAGCTGGCGAG  
CGCCCTGAGGAGGGATTCCGGGCAGGCGTTTTCCCTGGAGCAGCTCCGGCCGCTACTAGCCAGCTCTCTGCCGCT  
AGCCGCCCCGCTACCTGCAGCTGGACGCCGACGCC TTGTCCGCTGCAACGCTCATGGGGAGCCCCGAAACTACCT  
CAACACCCTGTCCACGGCTCTGAACATCCTGGAGAAATACGGCCGCAACCTTCTCAGCCCTCAGCGGCCTCGGTA  
CTGGCGTGGTGTCAAGTTTAATAACCCTGTCTTTCGAGCAGCGGTGGATGCTGTGCAGGGGGGCGGAGATGTGCT  
GCGATTATATGGCTACACAGAGGAGCAACCAGATGGGTTGAGCTTCCCCGAAGGGCAGGAGGAGCCAGATGAGCA  
CCAGGTTGCTACAGTCACACTGGAAGTACTGCTGCTTCGGACAGAGCTCAGCCTGCTATTGCAGAATACTCATCC  
AAGACAGCAGGCACTGGAGCAGCTGTTGGAAGACAAGGTTGAAGATGATATGCTGCAGCTTTCAGAATTTGACCC  
CCTATTGAGAGAGATTGCTCCTGGCCCCCTCACCACACCCTCTGTCCCAGGCTCCACTCCTGGTCCCTGCTTCCCT  
CTGTGGTTCTGCCCCAGGCACACTGCACTGCCCATCCTGTAAACAGGCCCTGTGTCCAGCCTGTGACCACCTGTT  
CCATGGACACCCATCCCGTGCTCATCACCTCCGCCAGACCCTGCCTGGGGTCTGCAGGGTACCCACCTGAGCCC  
CAGTTTACCTGCCTCAGCCCAACCACGGCCCCAGTCGACCTCCCTGCTGGCCCTGGGAGACAGCTCTCTTTCTTC  
CCCTAATCCTGCAAGTGCTCATTGCCCCTGGCACTGTGCTGCTGTGCCATGCTAAATGAGCCTTGGGCAGTGCT  
CTGTGTGGCCTGTGATCGGCCCCGAGGCTGTAAGGGGTTGGGGTTGGGAACTGAGGGTCCCCAAGGAACTGGAGG  
CCTAGAACCCTGATCTTGACAGGGGTGCGTGGGCCTGCCAGAGCTGTACCTTTGAGAATGAGGCAGCTGCTGTGCT  
ATGTTCCATATGTGAGCGACCTCGGCTGGCCAGCCTCCCAGCTTGGTGGTGGATTCCCGAGATGCTGGCATTG  
CCTGCAACCCCTTCAGCAGGGGGATGCTTTGCTGGCCTCTGCCAGAGTCAAGTCTGGTACTGTATTCACTGTAC  
CTTCTGCAACTCGAGCCCTGGCTGGGTGTGTGTTATGTGCAACCGGACTAGTAGCCCCATTCCAGCACAAATGC  
CCCCCGGCCCTATGCCAGCTCTTTGGAAGGGACCCCCAAGCCTGGGCCCCACGACGCCCTAGTGCCCCCT  
GCCAGTTCTGTGGAGATCCTGAGAAGCAGCGCCAAGACAAGATGCGGAAGAAGGCCTCCAGCTAGTGAGCAT  
GATCCGGGAAGGGGAAGCCGAGGTGCTGTCCAGAGGAGATCTTCTCGGCTCTGCAGTACTCGGGCACTGAGGT  
GCCTCTGCAGTGGTTGCGCTCAGAACTGCCCTACGTCTTGAGATGGTGGCTGAGCTGGCTGGACAGCAGGACCC  
TGGGCTGGGTGCCCTTTCTCTGTCAGGAGGCCCGGAGAGCCTGGCTGGATCGTCATGGCAACCTTGATGAAGCTGT  
GGAGGAGTGTGTGAGGACCAGGCGAAGGAAGGTGCAGGAGCTCCAGTCTCTAGGCTTTGGGCCTGAGGAGGGTC  
TCTCCAGGCATTGTTCCAGCACGGAGGTGATGTGTACGGGCCCTGACTGAGCTACAGCGCCAACGCCCTAGAGCC  
CTTCCGCCAGCGCCTCTGGGACAGTGGCCCTGAGCCCACCCCTTCTTGGGATGGGCCAGACAAGCAGAGCCTGGT  
CAGGCGGCTTTTGGCAGTCTACGCACTCCCCAGCTGGGGCCGGGCAGAGCTGGCACTGTCACTGCTGCAGGAGAC  
ACCCAGGAACATATGAGTTGGGGGATGTGGTAGAAGCTGTGAGGCACAGCCAGGACCGGGCCTTCTGCGCCGCTT  
GCTTGGCCAGGAGTGTGCCGTGTGTGGCTGGGCC TGCCCCACAACCGGATGCAGGCCCTGACTTCTGTGAGTG  
CACCATCTGTCTGACTGCTTCCGCCAGCACTTACCATCGCCTTGAAGGAGAAGCACATCACAGACATGGTGTG  
CCCTGCCTGTGGCCGCCCCGACCTCACCGATGACACACAGTTGCTCAGCTACTTCTCTACCCCTTGACATCCAGCT  
TCGCGAGAGCCTAGAGCCAGATGCCTATGCGTTGTTCATAAGAAGCTGACCGAGGGTGTGCTGATGCGGGACCC  
CAAGTTCTTGTGGTGTGCCCAGTGCTCCTTTGGCTTCATATATGAGCGTGAGCAGCTGGAGGCAACTTGTCCCCA  
GTGTCACCAGACCTTCTGTGTGCGCTGCAAGCGCCAGTGGGAGGAGCAGCACCGAGGTGCGAGCTGTGAGGACTT  
CCAGAACTGGAAACGCATGAACGACCCAGAATACCAGGCCAGGGCCTAGCAATGTATCTTCAGGAAAACGGCAT  
TGACTGCCCCAAATGCAAGTTCTCGTACGCCCTGGCCCCGAGGAGGCTGCATGCACTTTCACTGTACCCAGTGCCG  
CCACCAGTTCTGCAGCGGCTGCTACAATGCCTTTTACGCCAAGAATAAATGTCCAGAGCCTAACTGCAGGGTGAA  
AAAGTCCCTGCACGGCCACCACCTCGAGACTGCC TCTTCTACCTGCGGGACTGGACTGCTCTCCGGCTTCAGAA  
GCTGCTACAGGACAATAACGTCAATGTTAATAACAGAGCCTCCAGCTGGGGCCCGGGCAGTCCCTGGAGGCGGCTG  
CCGAGTGATAGAGCAGAAGGAGGTTCCCAATGGGCTCAGGGACGAAGCTTGTGGCAAGGAACTCCAGCTGGCTA  
TGCCGGCCTGTGCCAGGCACACTACAAAGAGTATCTTGTGAGCCTCATCAATGCCCACTCGCTGGACCCAGCCAC  
CTTGTATGAGGTGGAAGAGCTGGAGACGGCCACTGAGCGCTACCTGCACGTACGCCCCAGCCTTTGGCTGGAGA  
GGATCCCCCTGCTTACCAGGCCCGCTTGTACAGAAGCTGACAGAAGAGGTACCCTTGGGACAGAGTATCCCCCG  
CAGGCGGAAGTAGCTGAGGGCAAGGGTCCCGATGAGGGTCCCATGGCCTGCTCCCTCAGGAACAGCTCCAGCACC  
AATAAAGAGGCATCTTACCACCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 286**

MPGEEEEERAFVLVAREELASALRRDSGQAFSLEQLRPLLASSLPLAARYLQLDAARLVRCNAHGEPRNYLNTLSTA  
LNILEKYGRNLLSPQRPRYWVGKFNPNVFRSTVDAVQGGRDVLRLYGYTEEQPDGLSFPEGQEEPDEHQVATVT  
LEVLLLRTELSLLLQNTHPRQQALEDKVEDDMLQLSEFDPLLREIAPGPLTTPSVPGSTPGPCFLCGSAPG  
TLHCPSCQALCPACDHLFHGHPSRAHHLRQTLPGVLQGTHLSPSLPASAQPRPQSTSLALGDSSLSSPNPASA  
HLPWHCAACAMLNEPWAVLCVACDRPRGCKGLGLGTEGPQGTGGLEPDLARGRWACQSCTFENEAAAVLCSICER  
PRLAQPPSLVDSRDAGICLQPLQQGDALLASAQSQVWYCIHCTFCNSSPGWVCVMCNRRTSSPIPAQHAPRPYAS  
SLEKGPCKPGPPRRLSAPLPSSCGDPEKQRQDKMREEGLQLVSMIREGEAAGACPEEIFSALQYSGTEVPLQWLR  
SELPYVLEMVAELAGQQDPGLGAFSCQEARAWLDRHGNLDEAVEECVTRRRRKVQELQSLGFGPEEGSLQALFQ  
HGGDVSRA TELQRQRLEPFRQRLWDSGPEPTPSWDGPDQKQSLVRRLLAVYALPSWGRAELALSLLQETPRNYEL  
GDVVEAVRHSQDRAFLRRLLAQECAVCGWALPHNRMQALTSECTICPD CFRQHFTIALKEKHITDMVCPACGRP  
DLTDDTQLLSYFSTLDIQLRESLEPDAYALFHKKLTEGVLMRDPKFLWCAQCSFGFIYEREQLEATCPQCHQTFC  
VRCKRQWEEQHRGRSCEDFQNWKRMDPEYQAQGLAMYLOENGIDCPKCKFSYALARGGCMHFHCTQCRHQFCSG  
CYNIFYAKNKCPEPNCRVKKS LHGHHPRDCLFYLRDWTALRLQKLLQDNNVMFNTEPPAGARAVPGGGCRVIEQK  
EVPNGLRDEACGKETPAGYAGLCQAHYKEYLVSLINAHSLDPATLYEVEELETATERYLHVRPQPLAGEDPPAYQ  
ARLLQKLTEEVPLGQSIPRRRK

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**FIGURE 287**

CGGCGGCGGCGACAGGACCGAGGGGCCTTAGTTGGTGGGCAAGTCGGGGATCCCAGAAAGAGAAGCGTGACCCGG  
AAGCGGAAACGGGTGTCCGTCCCAGCTCCGGCCTGCCAGTGAGCTTCTACCATCATGGACCTATTGTTTCGGGCGC  
CGGAAGACGCCAGAGGAGCTACTGCGGCAGAACCCAGAGGGCCCTGAACCGTGCCATGCGGGAGCTGGACCGCGAG  
CGACAGAAACTAGAGACCCAGGAGAAGAAAATCATTCGACACATTAAAGAAGATGGCCAAGCAAGGCCAGATGGAT  
GCTGTTTCGCATCATGGCAAAAGACTTGGTGCACACCGGCGTTATGTGCGCAAGTTTGTATTGATGCGGGCCAAC  
ATCCAGGCTGTGTCCCTCAAGATCCAGACACTCAAGTCCAACAACCTCGATGGCACAAGCCATGAAGGGTGTACC  
AAGCCATGGGCACCATGAACAGACAGCTGAAGTTGCCCCAGATCCAGAAGATCATGATGGAGTTTGAGCGGCAG  
GCAGAGATCATGGATATGAAGGAGGAGATGATGAATGATGCCATTGATGATGCCATGGGTGATGAGGAAGATGAA  
GAGGAGAGTGATGCTGTGGTGTCCAGGTTCTGGATGAGCTGGGACTTAGCCTAACAGATGAGCTGTGGAACCTC  
CCCTCAACTGGGGGCTCGCTTAGTGTGGCTGCTGGTGGGAAAAAAGCAGAGGCCGCAGCCTCAGCCCTAGCTGAT  
GCTGATGCAGACCTGGAGGAACGGCTTAAGAACCTGCGGAGGGACTTGAGTGCCCCCTGCCACTCCGAGATAACCAG  
TGGATGCCCAGGATCTTTTACCACAACCCCTCTGTAATAAAAGAGATTTGACACTAAAAAAAAAAAAAAAAAAAA  
AAA

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**FIGURE 288**

MDLLFGRRKTPEELLRQNQRALNRAMRELDREERQKLETQEKKIADIKKMAKQGQMDAVRIMAKDLVRTRRYVRK  
FVLMRANIQAVSLKIQTLKSNN SMAQAMKGVTKAMGTMNRQLKLPQIQKIMMEFERQAEIMDMKEEMMNDAIDDA  
MGDEEDEEESDAVVSQVLDELGLSLTDELSNLPSTGGSLSVAAGGKAEAAAASALADADADLEERLKNLRRD

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**FIGURE 289A**

TTCCGGTGGCCTCTAGTGAGATCTGGAGGATCCAAGGATTCTGTAGCTACAATGTTGTCAAGACTTTTTCGAATGC  
ATGGCCTCTTTGTGGCCTCCCATCCCTGGGAAGTCATAGTGGGGACAGTGACACTGACCATCTGCATGATGTCCA  
TGAACATGTTTACTGGTAACAATAAGATCTGTGGTTGGAATTATGAATGTCCAAAGTTTGAAGAGGATGTTTTGA  
GCAGTGACATTATAATTCTGACAATAACACGATGCATAGCCATCCTGTATATTTACTTCCAGTTCCAGAATTTAC  
GTCAACTTGGATCAAAATATATTTTGGGTATTGCTGGCCTTTTCACAATTTTCTCAAGTTTTGTATTTCAGTACAG  
TTGTCATTCACTTCTTAGACAAAAGATTGACAGGCTTGAATGAAGCTTTGCCCTTTTCTACTTTTGATTGACC  
TTTCCAGAGCAAGCACATTAGCAAAGTTTGCCCTCAGTTCCAACCTCACAGGATGAAGTAAGGGAAAATATTGCTC  
GTGGAATGGCAATTTAGGTCCTACGTTTACCCTCGATGCTCTTGTGTAATGTCTTGTGATTGGAGTTGGTACCA  
TGTCAGGGGTACGTCAGCTTGAAATTATGTGCTGCTTTGGCTGCATGTCAGTTCTTGCCAACCTACTTCGTGTTCA  
TGACTTTCTTCCCAGCTTGTGTGCTCTTGGTATTAGAGCTTTCTCGGGAAAGCCGCGAGGGTTCGTCCAATTTGGC  
AGCTCAGCCATTTTGCCCGAGTTTTAGAAGAAGAAAGAAAATAAGCCGAATCCTGTAACCTCAGAGGGTCAAGATGA  
TTATGTCTCTAGGCTTGGTTCTTGTTCATGCTCACAGTCGCTGGATAGCTGATCCTTCTCCTCAAAACAGTACAG  
CAGATACTTCTAAGGTTTCATTAGGACTGGATGAAAATGTGTCCAAGAGAATTGAACCAAGTGTTCCTCTGGC  
AGTTTTATCTCTCTAAAATGATCAGCATGGATATTGAACAAGTTATTACCCTAAGTTTAGCTCTCCTTCTGGCTG  
TCAAGTACATCTTCTTTGAACAAACAGAGACAGAAATCTACACTCTCATTAAAAAACCTATCACATCTCCTGTAG  
TGACACAAAAGAAAGTCCCAGACAATTGTTGTAGACGTGAACCTATGCTGGTCAGAAATAACCAGAAATGTGATT  
CAGTAGAGGAAGAGACAGGGGATAAACCGAGAAAGAAAGTTGAGGTTATAAAACCTTAGTGGCTGAAACAGATA  
CCCCAAACAGAGCTACATTTGTGGTTGGTAACTCCTCCTTACTCGATACTTCATCAGTACTGGTGACACAGGAAC  
CTGAAATTGAACCTCCCAGGGAACCTCGGCCTAATGAAGAATGTCTACAGATACTTGGGAATGCAGAGAAAGGTG  
CAAAATTCCTTAGTGATGCTGAGATCATCCAGTTAGTCAATGTCTAAGCATATCCCAGCCTACAAGTTGGAACTC  
TGATGGAACTCATGAGCGTGGTGTATCTATTCCGCCGACAGTTACTTTCCAAGAAGCTTTCAGAACCTTCTTCTC  
TCCAGTACCTACCTTACAGGGATTATAATTACTCCTTGGTGATGGGAGCTTGTGTGAGAATGTTATTGGATATA  
TGCCCATCCCTGTTGGAGTGGCAGGACCCCTTTGCTTAGATGAAAAAGAAATTTAGGTTCCAATGGCAACAACAG  
AAGGTTGTCTTGTGGCCAGCACCAATAGAGGCTGCAGAGCAATAGGTCTTGGTGGAGGTGCCAGCAGCCGAGTCC  
TTGCAGATGGGATGACTCGTGGCCAGTTGTGCGTCTTCCACGTGCTTGTGACTCTGCAGAAAGTGAAGCCTGGC  
TCGAAACATCTGAAGGGTTCGCAGTGATAAAGGAGGCATTTGACAGCACTAGCAGATTTGCACGTCTACAGAAAC  
TTCATACAAGTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTGAGGGGATGCCATGGGGATGAACA  
TGATTTCAAAGGGTACAGAGAAAGCACTTTCAAACCTTACAGAGTATTTCCCTGAAATGCAGATTCTAGCCGTTA  
GTGGTAACTATTGTACTGACAAGAAACCTGCTGCTATAAATTGGATAGAGGGAAGAGGAAAAATCTGTTGTTGTG  
AAGCTGTCAATCCAGCCAAGGTGTGCAGAGAAGTATTAAAGACTACCACAGAGGCTATGATTGAGGTCAACATTA  
ACAAGAATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCAGCAAACATTGTCACCG  
CCATCTACATTGCCTGTGGACAGGATGCAGCACAGAATGTTGGTAGTTCAAACCTGTATTACTTTAATGGAAGCAA  
GTGGTCCCACAAATGAAGATTTATATATCAGCTGCACCATGCCATCTATAGAGATAGGAACGGTGGGTGGTGGGA  
CCAACCTACTACCTCAGCAAGCCTGTTTGAGATGCTAGGTGTTCAAGGAGCATGCAAAGATAATCCTGGGGAAA  
ATGCCCCGGCAGCTTGCCGAATTGTGTGTGGGACCGTAATGGCTGGGGAATTGTCACTTATGGCAGCATTGGCAG  
CAGGACATCTTGTCAAAGTCAATGATTCAACAACAGGTGCAAGATCAATTTACAAGACCTCCAAGGAGCTTGCA  
CCAAGAAGACAGCCTGAATAGCCCGACAGTTCTGAACTGGAACATGGGCATTTGGGTTCTAAAGGACTAACATAAA  
ATCTGTGAATTAAGAAAGCTCAATGCATTGTCTTGTGGAGGATGAATAAATGTGATCACTGAGACAGCCACTTGG  
TTTTTGGCTCTTTTCAGAGAGGTCTCAGGTTCTTTCCATGCAGACTCCTCAGATCTGAACACAGTTTAGTGCTTTA  
CATGCTGTGCTCTTTGAAGAGATTTCAACAAGAATATTGTATGTTAAAGCATCAGAGATGGTAATCTACAGTCA  
CCTCTGAAAGCAAATATAAGCTGGGAAAAAGTTTGTATGAAATTTTGAAGTTTATGGTGATCAGTGCAATTGA  
CCTTCTCCCTCACTCCTGCCAGTTGAAAAATGGATTTTAAATTATACTGTAGCTGATGAACTCCTGATTTTGTA  
GTTAATTTATTAAGTCTGGGATGTAGAATCTCAAGAAGTAAGAGCTAAGTTCTAAGTTTATGTTTGTAAATTAAT  
ACTTCATTTGGTGTGCTGCTATTTTGAATTTGGGGGGTAATCAGCATTATTCTTCAGAAGGGGACCTGTTTTCTT  
CAAGGGAAGAAACACTCTTATTTCCAAACTACAGAATAATGTGTTAAACATGCTAAATAGTTCTATCAGGAAAAAC  
AAATCACTGTATTTATCTCCGAGGCTATTTGTTTCAGAGAGGCCTTTTGTAAATATAAATGTTTAAATATAAA  
TGTTTGTCTGGATTGGCTATAACATGTCTTTCAGCATTAGGCTTTTAAAGAAACACAGGGTTTTGTATTCTTTACT  
AAAGATATCAGAGCTCTTAATGTTGCTTAGATGAGGGTGACTGTCAAGTACAAGCAAGACTGGGACCTTAGAAAT

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**FIGURE 289B**

CATTGTAGAAACACAGTTTTGAAAGATTTTTACCATGTCTCTAAGCCAACTTTAATTGCTTAAAAGACATTTTTA  
TTTAGTTGAAAAATCTAGTTTTTTTTTGTAAGTGTACCAAATCTGTATATGTTGTAATAAACTTATGCTAGTTT  
ATTGGAAGTGTTCAAGAAATAAAAATCAACTTGTGTACTGATAAAATACTCTAGCCTGGGCCAGAGAAGATAATG  
TTCTTTAATGTTGTCAGGAAACCCTGGCTTGCTTGCCGAGCCTAATGAAAGGGAAAGTCAGCTTTCAGAGCCAGT  
GAAGGAGCCACGTGAATGGCCCTAGAACTGTGCCTAGTTTCTGTGGCCAGGAGGTTGGTGACTGAAACATTTCACA  
CAGGGCTCTTGGATGGACCCACGAACGCTCTTAGCTTTTCTCAGGGGGTCAGCAGAGTTATTGAATCTTAATTTTT  
TTTAATGTACAAGTTTTGTATAAATAATAAAGAACTCCTTATTTTGTATTACATCTAATGCTTAAGTGTGCTCT  
TGGAAAGCTGATGATGTCTCTTGTAGAGATGACTCTGAAAAACATTCCAGGAAACCATGGCAGCATGGAGAGCCT  
CTTAGTGATTGTGTCTGCATTGTTATTGTGGAAGATTTACCTTTTCTGTTGTACGTAAAGCTTAAATTACTTTTG  
TTGTGACTTTTTAGCCAGTGACTTTTTCTGAGCTTTTCATGGAAGTGGCAGTGAAAAATATGTTGAGTGTTCAAA  
AAAGTGACTGTAATTAATATCTTGCTGGATTAATGTTTTGTACAATTACTAAATTGTATACATTTTGTATAGAA  
TACTTTTTTCTAGTTTCAGTAAATAATGAAAAGGAAGTTAATACCA



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**FIGURE 290**

MLSRLFRMHGLFVASHPWEVIVGTVTLTICMMSNMFTGNKICGWNIECPKFEEDVLSSDIIILTITRCIAILY  
IYFQFQNLRLQSGKYILGIAGLFTIFSSVFSTVVIHFLDKELTGLNEALPFFLLIDLSRASTLAKFALSSNSQ  
DEVRENIARGMAILGPTFTLDALVECLVIGVGTMSGVRQLEIMCCFGCMSVLANYFVFMFFPACVSLVLELSRE  
SREGRPIWQLSHFARVLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSLGLDENVSKR  
IEPSVSLWQFYLSKMISMDIEQVITLSLALLLAVKYIFFEQTTETESTLSLKNPITSPVVTQKKVPDNCCRREPM  
VRNNQKCDSEEEETGINRERKVEVIKPLVAETDTPNRATFVVGNSLLDTSSVLVTQEPEIELPREPRPNEECLQ  
ILGNAEKGAFLSDAEIIQLVNAKHIPAYKLETLMETHERGVSIIRQLLSKKLSEPSSLQYLPYRDYNSLVMGA  
CCENVIGYMPIPVGAVAGPLCLDEKEFQVPMATTEGCLVASTNRCRAIGLGGGASSRVLADGMTRGPVVRLP  
DSAEVKAWLETSEGFAVIKEAFDSTSRFARLQKLHTSIAGRNLIRFQSRSGDAMGMNMISKGTEKALSKLHEYF  
PEMQILAVSGNYCTDKKPAAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIGGYN  
AHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQG  
ACKDNPGENARQLARIVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKKTA

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**FIGURE 291**

GAGAAGGCCCCAGGAAGTGACGGCCGCCTCCCGGCTACCGGGGACTTCTGGAGTCCGAGAAGTCAACGGCGCGGTT  
GCTGCGGCCCGCCGCGCTCCCCGGCCCGAGGCG**ATCG**GAGAACGGAGCGGTGTACAGCCCCACTACGGAGGAGGACC  
CGGGCCCCGCCAGAGGCCCGCGAGCGGCCTCGCTGCCTACTTTTTCATGGGCGCGCTCCCATTGCTCCGGCGCG  
TTCTCAAGGGCTTGCAGCTGTTGCTGTCTCTGCTGGCCTTCATCTGTGAAGAAGTTGTATCACAATGTACTTTAT  
GTGGAGGACTTTATTTTTTTGAGTTTGTAAAGCTGCAGTGCCTTTCTTCTGAGTCTCCTTATACTGATTGTGTATT  
GCACTCCATTTTATGAGAGAGTTGATACCACAAAAGTAAAATCATCGGATTTTTATATTACTTTGGGAACAGGAT  
GTGTGTTTTTGTGGCATCCATCATTTTTTGTTCACACATGACAGGACTTCAGCTGAGATTGCTGCAATTGTGT  
TTGGATTTATAGCAAGTTTTATGTTTCTACTTGACTTTATCACTATGCTGTATGAAAAACGACAGGAGTCCCAGC  
TGAGAAAACCTGAAAATACCACTAGGGCTGAAGCCCTCACTGAGCCACTTAATGCC**TAA**AGACTCTGGGGAGCAG  
ATGTTACCTAAGGTAGTGACCCTGCATTGTGGTGCCTGAGCCCTGGCAGAAGCTCTTGTAATAATTTGTTAATTGT  
TTAAACCACTTCTTTTGGAGAGCAAGGGGAAGGTCAAGAAGGCAGTTTTATCAATATTGTGTGAGTCACCACAAA  
GTAGGCCAGATAAGTTAAAAAAATTTTTTTTTTAAATAATAATTGAACTTATCTCAAATGGAGATTTTGGTGGG  
AGGAGGAGAAAACAATTGTTTTTAAATCACACAGCTCAACGGTTGATAAATGATTCTGTCATTCTGTTACAGGTC  
ATTCTTTTACTAGGCTTAGCTTCCAAATTATGCTTTATAGCTGTATAAACATCGTGATTATATTCATCTACTTAG  
AAATTGTTTTATTTTTAAATTAATTTGCTTAGCTGTTTGTGTTGATGCTTAGATTATGTTCTGTAAATGGGAATT  
TAACATATTTAAGAAACCAATATTTAAATGTTGGTCTAGGTTTTTTTCTTAACATATATTACCAGGCTTTACT  
GTATTTCACTCAGCCTTAAATGTTATAATATTTTTGGATAACGGTTATTAATTCTTTGAGACCTTCGTATAGCCT  
ATAAAATGTATGGGAGATGTTGGTATTTTATGTGTATAAAAGCAACAATATCAGCAACTTCGTGTTTATACTGCA  
CCTTGGTTGTTGATGTCAAGTAAAAAAAAGATTGTTTTGTAACACATAAAAAAATGGAAGAACTGATACCACAC  
CTAAGGACCAAAGATAAGAAAGACTTTTTGCCCAAGACAGTGAAAGTAATTATAAAAACAAGCTTTGACCACTTA  
CCAAGTATCTGAAGAGATGAGTTCATACTATGATTTAGAAAGTGGTTCGATTCCCCTGTTGGCATATGATTATTT  
TTACTAAAATTAATACAGCTCTGTGGTCTTCCTTAGTGTTTTCTTTGAAGCCAATCTGTTTTTTTTTAGGACACC  
AGCCTTTGGTTTTTTCATCTGTTGAGATGCCTCTTCTGTCTCCTTATCAGATAGAAATGGAGTCATGTGCTGC  
TGCTTCATCTAGCAGAGGTTGGCCTCTGGCTCTGACACTTTTTGTGAGTTGTCTTTAGGTGGTCTGAATCTTGG  
GCCCTTTGATTGTGAATACTGTGTAGCAGGATCTTGAGAGTCCTTGTTCTTACATAGGCATTGCTCTAGTTTGT  
CTTTGGCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 292**

MENGAVYSPTEEDPGPARGPRSGLAAYFFMGRPLLRRLKGLQLLSLLAFICEEVVSQCTLCGGLYFFEFVS  
CSAFLLSLLILIVYCTPFYERVDTTKVKSDFYITLGTGCVFLLASIIFVSTHDRTSAEIAAIVFGFIASFMFL  
DFITMLYEKRQESQLRKPEPENTTRAEALTEPLNA

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FIGURE 293A

AGCGCATGAGCCAGAGGAGGAGGATGAACTAGGCTCAGGGCGGGATGTGGATTCCAACCTCCAACGCGGACAGTG  
AGAAATGGGTGGCAGGAGATGGTTTGAAGAACAGGAATTTTCTATCAAGGAGGCAAACCTTCACAGAGGGAAGTC  
TGAAGCTAAAGATTACAGACCACAAAGCGGGCTAAGAAACCCCCAAAGAATTTGGAGAACTATATATGTCCACCTG  
AGATCAAGATCACCATCAAGCAGTCTGGGGACCAGAAGGTGTCCCGTGCTGGAAAAATAGCAAAGCCACGAAGG  
AGGAAGAAAGAAGCCACTCCAAAAAGAAGCTCCTCAGCCAGTGACCTTGACGCCAGTGACCTCAAAGGATTTTC  
AGCCACAGGCTTACGAAAGGCCCCAGAAACATTCAACTCTCCATTATGACACGGGCCTCCACAGGACTTCACCG  
GTGACACCTTAAAACCAAAGCACCAGCAAAAAAGCAGCAGCCAGAACCACATGGACTGGTCCACCAACTCTGACA  
GCGGACCCGTCACCTCAGAATTGCTTCATCAGTCCAGAGTCTGGCAGAGAACTGCAAGCACCAGCAAGATCCCCG  
CTCTTGAGCCCCGTGGCTTCTTTGCAAAGGCCAGGGTAAGAAAGGCAGTGACGGGAACACGTGGAGTCAGTTGT  
CTAACAATAACAAAGATCTGCTCTTGGGAGGTGTGGCTCCATCCCCAAGCAGCCACAGCTCACCAGCCCCACCCA  
GCAGCTCTGCTGAGTGCAACGGGCTTCAGCCCTTGGTGGATCAAGATGGAGGAGGTACAAAGGAGCCCCCAGAAC  
CACCTACGGTGGGCAGCAAGAAAAAGTCCAGTAAAAAAGATGTGATAAGTCAGACCATACCAAACCCAGACCTGG  
ATTGGGTCAAGATGCCCAGAAAGCATTGACAATACAGAAGGGAAAAAGGGAAGGTTATTCCGCAGATAGTGCCC  
AAGAGGCATCACCAGCCAGGCAGAACGTGAGTTCTGCCAGTAATCTGAAAATGACTCAAGTCATGTCCGGATTA  
CTATCCCCATCAAGGCACCCTCTCTGGATCCAACCAACCATAAGAGGAAAAAAGACAGTCCATTAAAGCGGTGG  
TGGAAAAGATCATGCCAGAGAAAGCCTTGGCTTCTGGAATCACCATGAGCAGTGAAGTAGTTAACAGGATACTTT  
CCAACCTCTGAGGGGAATAAGAAGGATCCCCGTGTCCCTAAGTTGAGTAAAAATGATAGAGAATGAGTCCCCCTCAG  
TTGGCCTTGAACTGGTGGAAATGCTGAGAAAGTTATCCCAGGAGGTGTGTCTAAGCCGCGGAAGCCACCCATGG  
TCATGACACCTCCAACGTGCACAGATCACTCTCCATCCAGAAAGCTGCCAGAAATCCAGCATCCAAAATTTGCTG  
CAAAACGAAGGTGGACTTGCAGCAAACCAAAACCTAGCACCATGCTTCGAGAGGCAGTTATGGCCACCTCTGATA  
AACTGATGCTGGAGCCCCCGTCTGCATATCCCATCACCCCATCCAGCCCTCTCTACACCAACACAGACAGTCTTA  
CTGTGATCACTCCAGTCAAAAAGAAGCGGGACGACCAAGAAGCAGCCTTTGCTCACAGTCGAGACGATTCTATG  
AGGGAACCTCCACCAGCCCCGTGCTAGTCCCATCAGCCGAGAGTTTTCTGGCACTAAGAAAAGAAAGCGACGACGCA  
ATTTAGCGAAGTTGGCCCAGCTAGTGCCGGGAGAGGACAAACCCATGAGCGAGATGAAATTTTACAAGAAAGTTG  
GAAAGCTCGGCGTGTGGATAAGAAGACCATCAAACTATCAATAAGATGAAGACACTCAAGAGGAAAAACATCT  
TGAATCAGATCTTGTCTGTTCAGCAGCGTTGCTCTGAAGGCAAAAGCTCCCCCAGAGACCAGCCCTGGGGCAG  
CAGCCATTGAAAGCAAACCTGGGCAAGCAGATTAATGTCAGCAAGAGGGGAACCATCTACATTGGCAAGAAGCGGG  
GCAGGAAGCCAAGAGCAGAGCTGCCACCCCCATCCGAAGAACCAAAACAGCCATCAAGCACCCCAGGCCTGTTT  
CTAGCCAGCCGGATGTTCCAGCCGTGCTTCCAACTTTCAGTCACTTGTGGCGTCTTCACCAGCAGCTATGCACC  
CACTTTTCAACACAGTTAGGTGGGTCCAATGGCAACCTGAGCCCTGCCAGCACTGAAACCAATTTTTTTCAGAGTTGA  
AACTATGCCAAATCTCCAGCCCATCAGTGCTCTTCCAACCAAAACCAAAAGGGAATACACAGTGGAACCTGGA  
AGCTGTCTCCACCCAGACTGATGGCCAACCTCCCTTCACACCTGTGCGAGATTGGCTCCCTAAAGGAAATCACGC  
TGTCCCTGTGAGCGAGTCCCACAGTGAGGAGACGATCCCCAGCGACAGCGGCATTGGGACAGACAACAACAGCA  
CTTCTGACCAAGCGGAGAAGAGCTCAGAATCCCGAAGGAGGTACTCTTTTGATTCTGCTCCCTGGACAACCCGG  
AGGCCATTCCGTCCGACACCAGCACAAAGAACCGGCATGGCCACCGGCAAAAGCATCTCATTGTGGACAACCTTC  
TGGCCACGAAAGCCTCAAGAAGCCAAAGCACAAAGAGGAAACGGAAGCCTGCAAAACCCGCGATGACCTCCAGT  
TTCTGGCAGACCTGGAGGAGCTAATCACCAAGTTCCAAGTGTTTCAAGATCTCCCACCGGAGTTACACCTTCTACC  
ACGAGAATCCATATCCCAGCATTTTTTCGGATTAATTTTGATCACTATTACCCGGTGCCATATATCCAGTATGACC  
CGTTGCTCTATCTTCGTAGGACTTCAGACTTGAAGTCAAAGAAGAAGCGTGGTAGGCCTGCAAAAACCAATGACA  
CCATGACAAAGGTGCCTTTTTTACAAGGGTTTCACTTACCCTATTCCCAGTGGAAGTTACTATGCACCCTATGGAA  
TGCCTTACACATCAATGCCTATGATGAACCTTGGTTATTACGGTCAGTACCCAGCTCCTTTGTACCTATCGACA  
CGCTTGGAGCAGCTTCCCCATTATGAGGCCAACAGTGCCACCACCTCAGTTCCACACAACTCCCACATAAAGA  
TGTCCGGTGCAGCTAAGCATAAAGCCAAGCATGGAGTACACCTGCAGGGACCTGTTAGCATGGGCCTTGGTGACA  
TGCAGCCTTCTCTGAACCTCCCAAGGTAGGCAGTGCCAGTCTGTCCAGTGGTCCGCTCCATAAGAGGAAACACA  
AACACAAGCATAAGCACAAAGGAAGACCGGATCCTAGGGACCCATGACAACCTGAGTGGTCTTTTTTGACGGCAAAG  
CCACAGGCTTCTCCAGCCACATCCTGAGCGAGCGGTGAGTAGCGCAGACAAAGAGCTCCCGCTGGTGAGTGAGA  
AGAACAAGCATAAGGAGAAACAGAAGCACCAGCACAGCGAAGCCGGCCACAAAGCTTCTAAGAACAACCTTGAGG  
TGGACACCCTGTCTACACTGTCACTTTCCGACGCCCAGCATTGGACACAGGCCAAGGAAAAAGGAGACTTGAGCA

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**FIGURE 293B**

GTGAGCCTGTGGACTCATGCACGAAAAGATACTCTGGCAGTGGCGGGGATGGTGGCAGCACGAGATCGGAGAACC  
TGGACGTGTTCAAGTGAAATGAACCCCTTCGAATGACAAGTGGGACAGTGACGTGAGTGGGAGTAAAAGGAGGAGCT  
ATGAAGGCTTTGGAAACGTACAGGGAAGGACATCCAAGCCTTCAAGATGAACCGCAAGGAGAGAAGTTCTTATG  
ACTCCTCCATGTCTCCAGGGATGCCAAGTCCCCACTTAAAAGTGGACCAGACAGCAGTGCATAGTAAGAACGAAG  
GCTCAGTGGCCACCATGATGACCAGGAAGAAGCCAGCCGAGTTGACAGTGTTACAATTCCACCAGCCCCAGTGT  
TATCTCTCCTTGCTGCATCTGCAGCAACGTCGGATGCAGTCGGCTCCTCCCTGAAGAAGAGGTTCAAGCGGCGGG  
AGATCGAAGCCATCCAGTGCGAAGTGCAGGAAGATGTGCAACTACACCAAGATCCTGTCCACCAAGAAGAACCTGG  
ACCACGTGAACAAGATCCTGAAGGCCAAGCGGCTGCAGAGACAATCAAAAACAGGCAACAACCTTCGTGAAGAAGA  
GGCGCGGGCGTCCAGGAAGCAGCCCACCCAGTTTCGATGAGGACTCCAGAGACCAAATGCCGGTGCTGGAAAAAT  
GCATCGACCTGCCCAGCAAAAGAGGCCAGAAGCCCAGCCTGAGCCCCGTGGTGTGGAGCCCCGCCGCCAGCCAAG  
ACACCATCATGGCCACCATCGAGGCGTTCATCCACATGGCCCCGGGAGGCGCCGCCCTGCCCGGCCACCGCCGC  
CGCCCCGTGCCGCCACCGCCGCCACCCCTGCCCGGCCACCCCTCTACCCAAGACCCCCGAGGCGGAAAGA  
GGAAACACAAACCGCAGGCCCCCGTCTAGCCCCACAGCAGTCGCCCCCGCAGCAGCCCCCTCCCCAGGAAGAGG  
AGGTGAAAGCCAAAAGGCAGAGGAAGTCCCAGGGAGTGAGAGCGAGGTCCTTCCCTAGGGCGGGTCTGGGCGTC  
TGCACCTGGGGCCTAGGGAACGACACGTGGGAAGCGCAGTGAGCCGGGGCGGGGCGGAATCCCCCGCTGCAGG  
GACACCCACGCCCTTCTCTCCAGAAGCCGGGCAGGCAGAATCCGGCCAGACGACGGGGCTGAGCCATCAGGAGCT  
CTTGGGAAAGCAAAGCAGGGAGACACCTTCAGAAGAAGCTTGTCTGAGCTTCACCGCAGTCCCACCACGCGGCG  
CTTCAGTACGGCTGGATCCTCCGCAGGCGAGCGGAAGGCCCCAGGAGGAGCAGGCTGGTGGCACTCTCCTGACC  
TCACGCTGCCAAGGTGCGCCCTCGACTCCCGATTTTCAATTTGCTGGCCAGGAAAATCGAAAGGGAAACACCCTCAA  
TTAGGAAACATTCCAAGGGGAGAAAAAGCTGCAATTGCTCAACTGGCATTGCTGTAACCCGTTCCATTTAATTGG  
TTTTTATTTCTTTTGATTTTCAAGCTCTGCTAAGCTTTGGGGTACCAACGTCATCTTCAGGTGACCTGAATCTTT  
CCCTTAACCGTACAGTTTCTCGATGGAATTGTGTGATCAGAAGGTGGAATTCTAGTGATAGGCGACCTCAGACCC  
GCATTCATGTTCTGTGTGCCTCTTCTATTGCACATACACTGATTTTTAGCATTGTCTATTCTATTTTTCTTTG  
CCCATTGTACTTCCATATATCTTTTCATTAACCTTACTTGCTGCCTTTTTTTTTTTCTTGGTACACATTTAAATAAA  
GTAATCCTTAACCTGTGCTGTAAAGTTCACCCTTGCGATGCTGTTCCAAGAACCTGGGTTTGAATCCCAATCGTT  
GTGAAACATACTCAGTATTGATAAAACCTTTTTAATAAGTGATGCAGAGCAGCCAAGGATATGTTGACCCAGATG  
TCAACCAGGCTATTTTTATACTTAAAAACATGTCAGCAGAGCATAGGCAGAATAAAATGGTTTAAATACCCACAG  
CAAATAGAGTAACTGACAAACCACCAAAAACTGAAACCCAGACCCACCAGAAAGACAAGTGCTAGCAATGCCT  
TGGTACCTGATCTTTTTTCAATTCAAATAATTGTCATAGGTTGTTT

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**FIGURE 294**

MEPEEEDELGSGRDVDSNSNADSEKQWVAGDGLLEEQEFSEKEANFTEGSLKLKIQTTKRAKKPPKNLENYICPPEI  
KITIKQSGDQKVS RAGKNSKATKEEERSHSHKKLLTASDLAASDLKGFQPPQAYERPQKHSTLHYDTGLPQDFTGD  
TLKPKHQKSSSQNHMDWSTNSDSGPVTQNCFISPESGRETASTSKIPALEPVASFQAKQGGKSAGNTWSQLSN  
NNKDLLLGGVAPSPSSHSSPAPPSSSAECNGLQPLVDQDGGGTKEPPEPPTVGSKKKSSKKDVISQTI PNPDLDW  
VKNAQKAFDNTEGKREGYSADSAQEASPARQNVSSASNPENDSSHVRITIPKAPSLDPTNHKRKKRQSIKAVVE  
KIMPEKALASGITMSSEVVNRILSNSEGNKKDPRVPKLSKMIENESPSVGLTGGNAEKVIPGGVSKPRKPPMVM  
TPPTCTDHSRSLPEIQHPKFAAKRRWTC SKPKPSTMLREAVMATSDKLMLEPPSAYPITPSSPLYTNTDSLTV  
ITPVKKKRGRPKKQPLLTVETIHEGTSTSPVSPISREFPGTKKRKRRLAKLAQLVPGEDKPMSEMFKHKKVGK  
LGVLDKKTIKTINKMKT LKRKNILNQILSCSSSVALKAKAPPETSPGAAAIESKLGKQINVS KRGTIYIGKKRGR  
KPRAELPPPSEEPKTAIKHPRPVSSQPDVPAVPSNFQSLVASSPAAMHPLSTQLGGSNGNLSPASTETNFSELKT  
MPNLQPI SALPTKTQKGIHSGTWKLSPPRLMANSPSHLCEIGSLKEITLSPVSESHSEETIPSDSGIGTDNNSTS  
DQAEKSSSESRRRYSFDFCSLDNPEAIPSDTSTKNRHGRQKHLIVDNFLAHESLKKPKHKRKRKSLQNRDDLQFL  
ADLEELITKFQVFRISHRSYTFYHENPYPSIFRINF DHYYVPYI QYDPLLYLRRTSDLKSKKKRGRPAKTNDTM  
TKVPFLQGF SYPIPSGSYYAPYGMPTSMMPMMNLGYYGQYPAPLYLSHTLGAASPFMRPTVPPPQFHTNSHIKMS  
GAAKHKAKHGVHLQGPVSMGLGDMQPSLNP PKVGSASLSSGRLHKRKHKKHKKHKKEDRILGTHDNLSGLFAGKAT  
GFSSHILSERLSSADKELPLVSEKNKHKEKQKHQHSEAGHKASKNNFEVDTLSTLSLSLSDAQHWTQAKEKGDLSSE  
PVDSC TKRYSGSGDGGSTRSENLDVFSEMNPSNDKWDSDVSGSKRRSYEGFGTYREKDIQAFKMN RKERSYDS  
SMSPGMPSPHLKVDQTAVH SKNEGSVPTMMTRKKPAAVDSVTIPPAPVLSLLAASAATSDAVGSSLKKRFRKREI  
EAIQCEVRKMCNYTKILSTKKNLDHVNKILKAKRLQRQSKTGNNFVKRRGRPRKQPTQFDEDSRDQMPVLEKCI  
DLPSKRGQKPSLSPLVLEPAASQDTIMATIEAVIHMAREAPPLPPPPPPPLPPPPPPPLPPPPPLPKTPRGGKRK  
HKPQAPAQPPQQSPPQQPLPQEEEVKAKRQRKSRGSESEVLP

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**FIGURE 295**

GCCGCTTTTTTTTTTCTCATCTGCCATTTGTGTGTCTTAGATGGGTTTTAATTGCATGAATGTGGCTAATGTG  
GTTCTCAGAAATTGGTCAGTATGGCCCGACATAGCTTCTGCTCTGTCTTGCTGACTCAATACCTTTAGGATTTGT  
ATCAGAGTTTGGATACTAGTGTTAGTGGTGGTGTCACTACTTAATTGGGAGATAATGAAACCAATCATGGAT  
GCTGTTTTTATTGGGCATGTCACTAAGAGAGGAGAAATAGCTGGGTTTTGGGTCTAATTATGAATAAGGACTGA  
TTCAGAAAACGAGTTTATGGTAGGTAGACTAAAGTTTCACATCAGACTGTACCATTGTGATTAGACCTATCTAA  
AATTCAGAGCATATCATCTGGGCTACCTCAGGGTCACCACCCATGTATTGGGCTTAGTCAGGATTGACAGATACA  
TTCTCAGCTGGCCTGTCATATAAAACATACTGTCAATTGAGCTTAAGCTCCGCTTGTTCTGAGGTTTCACCTCCAT  
GTGTTTCATTGGTGCAAAAAGTGGATCTCTTAGTTGGTCACTTAATTCTTTCTTTTTCAGAAAGATAGTATGTTCA  
CTGGTATATTTGGTCACTCTTAGAACCTTCCTTCACATTGTTTTTTATGGGACCCATGAATGGTTAGCCTTTCTT  
TTCTATTGTAGAAGGAAATAAATAGGAGTAAAAAGACCATTGTAGTAAATAAGTTCAAGGGGAACCTGGGACCAG  
AAACCACTGTTATGTACAAAAAATGGCAAATTCAATAAACTCAAATTTAAAATAATTTTAAATTAACAGTTAT  
GATAAATTTTATATTTTATACAAATAGATTGCTTAGAATGGTTCTCAAGAATTATAAGAGAAATGAACCTCACAGT  
ACAAAAATTTTATAATTACTATACTTGTGTTTTGT TTGGGGGCTGGGAAATGTATTTTACATTGTAGCCAATCA  
TTTTATATTTGTCAATTTAAATCTTATGGGTCTTTTTTTTTTATCTCTCTTGATGTCAGATTTTATAGTCTTTT  
TAAATAAATCCATTTAATTAAACGTTAAAAAA

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**FIGURE 296**

MINFIFYTNRLLRMLKKNYKRNELTVQKFYNYTTCVLEGGWEMYFYIVANHFIFVNLNLMGLFFFISLDVRFYSL  
FK



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**FIGURE 297**

GTGACTACCAGAAAATACTTTCAACATAAATGAACTCTCCAACCTATTAAACTTTTATATAGATAGAGGAAGAC  
AGCTCTTTCGGGATAACCCACCTGATACCTGCAGAAACCCCCAGTCCTGTTATTTTCAGTGATTTTCCATTTATCT  
TTAATTCGCTATCCAAAATTAAATTATTGCAAGCTGATTACATATAAAAGATCCAGATGTCAGAAAAGAAAGCAT  
ACATGCTTATGCATGAAACAATTCTGCAAAAAAAGGATGAATTTCTCCATCACCCAGATTTTACTTAGAGTCA  
GACGAAGTCGCCTGGTTAAAGATGCTCTGCGTCAATTAAGTCAAGCTGAAGCTACTGACTTCTGCAAAGTATTAG  
TGGTTGAATTTATTAATGAAATTTGTCCTGAGTCTGGAGGGGTTAGTTTCAGAGTTCTTCCACTGTATGTTTGAAG  
AGATGACCAAGCCAGAAATATGGAATGTTCAATGTATCCTGAAATGTGTTCTGCAATGTGGTTTCTGCCAAGCCTA  
AACCTGAGAAGAAAAGATATTTCTCTTTGGAATGCTGTGTGGACTCTCCTTATTCAATTTAAATGTTGCTAACC  
TTCCTTTCCCACTGGCTCTGTATAAAAACTTCTGGACCAAAGCCATCATTGGAAGATTTAAAAGAACTCAGTC  
CTCGGTTGGGGAAGAGTTTGAAGAAGTTCTAGATGATGCTGCTGATGACATTGGAGATGCGCTCTGCATACGCT  
TTTCTATACACTGGGACCAAATGATGTTGACTTAATTCCAAATGGGATCTCCATACCTGTGGACCAAACCAACA  
AGAGAGACTATGTTTCTAAGTATATTGATTACATTTTCAACGCTCTGTGAAAAGCAGTTTATGAGGAATTTCAGA  
GAGGATTTTATAGAGTCTGTGAGAAGGAGATACTTAGACATTTCTACCCTGAAGAACTAATGACAGCAATCATTG  
GAAATACTGATTATGACTGGAAACAGTTTGAACAGAATTCAAAGTATGAGCAAGGATACCAAAAAATCAATCCTA  
CTATACAGTTGTTTTGGAAGGCTTTCCACAAGCTAACCTTGGATGAAAAGAAAAAATTCCTCTTTTCTTACAG  
GACGTGATAGGCTGCATGCAAGAGGCATACAGAAAATGGAATAGTATTTGCTGTCTGAAACTTTTCAGTGAAA  
GAGATCACCCAACATCAATAACTTGTGATAATATTCTCTCCCTCCCTAAGTATTCTACAATGGAAAGAATGGAGG  
AAGCACTCCAAGTAGCCATCAACAACAACAGAGGATTTGTCTCACCCATGCTCACACAGTCAATATCACCTCTGA  
GAGACTCAGGGTGGGCTTTCTCACACTTGGATCCTTCTGTTCTTCTTACACCTAAATAATACAAGAGATTAATG  
AATAGTGGTTAGAAGTAGTTGAGGGAGAGATTGGGGGAATGGGGAGATGATGATGATGGTCAAAGGGTGCAAAAT  
CTCACACAAGACTGAGGCAGGAGAATAGGGTACAGAGATAGGGATCTAAGGATGACTTGGACACACTCCCTGGCA  
CTGAAGAGTCTGAACACTGGCCTGTGATTGGTCCATTCCAGGACCTTCATTTGCATAAGGTATCAAACCACATCA  
GCCTCTGATTGGCCATGGGCCAGACCTGCACTCTGGCCAATGATTGGTTTATTCCAGGACATTTCATTTGCATAAG  
GAGTCAAACCACACCAGTCTTGGATTGGCTGTGAGCCAATTCACCTCAGTCTCTAATTGGCTGTGAGTCAGTCTT  
TCATTTACATAGGGTGTAACCATCAAGAAACCTCTACAGGGTACTTAAGCCCCAGAAGATTTTGCTACCAGGGCT  
CTTGAGCCACTTGCTCTAGCCCACTCCCAACCTGTGGAATGTACTTTTCACTTTTGTGCTTCACTGCCTTGTGCT  
CCAATAATCCACTCCTTCACCACCCAAAAA

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**FIGURE 298**

MQMSEKKAYMLMHETILQKKDEFPPSPRFILRVRRSRLVKDALRQLSQAEATDFCKVLVVEFINEICPESGGVSS  
EFFHCMFEEMTKPEYGMFMYPEMCSCMWFPAPKPKPEKKRYFLFGMLCGLSLFNLNVANLPFPLALYKKLLDQKPS  
LEDLKELSPRLGKSLQEVLDAAADDIGDALCIRFSIHWDQNDVDLIPNGISIPVDQTNKRQDYVSKYIDYIFNVSV  
KAVYEEFQRGFYRVCEKEILRHFYPEELMTAIIIGNTDYDWKQFEQNSKYEQGYQKSHPTIQLFWKAFHKLTLDK  
KKFLFFLTGRDRLHARGIQKMEIVFRCPETFSERDHPTSITCHNILSLPKYSTMERMEEALQVAINNNRGFVSPM  
LTQS

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**FIGURE 299A**

CTGGCGCGCGCACGCGCACGCGCGCGCCACCGCGCGGCTTCCCCGCTCCCCGGTGCTGAGGAGAGAGCGATCC  
GAGGGACTGCGCCGCGCGGACGGCCTGCAGAGCGCTGCCATCATGAGTGAAATTCGTAAGGACACCTTGAAGGCC  
ATTCTGTTGGAGTTAGAATGTCATTTTACATGGAATTTACTTAAGGAAGACATTGATCTGTTGAGGTAGAAGAT  
ACAATTGGGCAACAGCTTGAATTTCTTACCACAAAATCTAGACTTGCTCTTTATAACCTATTGGCCTATGTGAAA  
CACCTAAAAGGCCAAAATAAAGACGCCCTTGAGTGCTTGGAACAAGCAGAAGAAATAATCCAGCAAGAACACTCA  
GACAAAGAAGAAGTACGAAGCCTGGTCACCTGGGGAAACTATGCCTGGGTGTATTATCACATGGACCAGCTTGAA  
GAAGCTCAGAAGTATACAGGTAAGATAGGGAATGTCTGTAAGAAATTGTCCAGTCCTTCTAACTACAAGTTGGAG  
TGTCCTGAGACTGACTGTGAGAAAGGCTGGGCACTCTTGAAATTTGGAGGAAAGTATTATCAAAGGCTAAAGCG  
GCTTTTGAGAAGGCTCTGGAAGTGGAGCCTGACAATCCAGAATTTAACATCGGCTATGCTATCACAGTGTATCGG  
CTGGATGATTCTGATAGAGAAGGGTCTGTAAAGAGCTTTTCTCTGGGGCCTTTGAGAAAGGCTGTTACCCTGAAC  
CCAGATAACAGCTATATTAAGGTTTTTCTGGCACTGAAGCTTCAAGATGTACATGCAGAAGCTGAAGGGGAAAAG  
TATATTGAAGAAATCCTGGACCAAATATCATCCAGCCTTACGTCTTCGTTATGCAGCCAAGTTCTATAGGAGA  
AAAAATTCCTGGAACAAAGCTCTCGAATTTTAAAAAAGGCCTTGAGGGTGACACCAACTTCTTCTTCTGCTAT  
CACCAGATGGGACTTTGCTACAGGGCACAAATGATCCAAATCAAGAAGGCCACACACAACAGACCTAAAGGAAAAG  
GATAAACTAAAGGTTGATGAGCTGATTTTCATCTGCTATATTTTCATTTCAAAGCAGCCATGGAACGAGACTCTATG  
TTTGCAATTTGCCTACACAGACCTGGCCAACATGTATGCTGAAGGAGGCCAGTATAGCAATGCTGAGGACATTTTC  
CGGAAAGCTCTTCGCTCTGGAGAACATAACCGATGATCACAACATCAGATCCATTACCACTATGGCCGCTTTTCAG  
GAATTTACCCGTAAATCAGAAAATACTGCCATCCATCATTATTTAGAAGCCTTAAAGGTCAAAGACAGATCACCC  
CTTCGCACCAAAGTACAAAGTGCTCTGAAGAAATTGTCTACCAAGAGACTTTGTACAATGCTTTAGATGTGCAG  
AGTTTTAAGTGCCCTAGGGTTTGTGTTACAAGCTGGAAGGAGAAAAGAGGCAAGCTGCTGAGTACTATGAGAAGGCA  
CAAAAGATAGATCCAGAAAATGCAGAATTCCTGACTGCTCTCTGTGAGCTCCGACTTTCCATTAAATACATACT  
CTAGGAAATTAGCTCTAAGTTTTTCCCTTCATTTTGGGTTCTCTGTTTGTGTTTTTTTTTATTATTTAATCCCT  
TGTTTTATTATAGAGCTAATATTTATTGAATAGTTATGTGTACCAAGCATTGTGCTAAATACTTTATATGCATTA  
TGATGAATCTTGTCGGGTTTTCTTTCTTTTTTTCTTTTTAATTAAATACTATAATCCATTGAGAAAATAGCAATA  
TTCTAGCTATTGTAACCTTCTAAAAATGGTATGGCCATTAGATCTGTGCTTTTTATCTCTGCTCTTTGAATTTCTC  
ATATTATATAGTAAATATATTCTACGTAAACCTTGATACCTAGATCAGGAATACTCTTCCAGGAGTACAAAAT  
TACATTATTGATAGTTAAGCTCTTAATTGTGTAGCTTGCAAAAGACAGCACTTTTGTAGTTACAGATGTTTTGACT  
TTGATGAGGATATTTAGCTATCAATCTAATAGTCACCTAAATATCTTTTTTGTGTTGAAAAAAGTTTATAATAAA  
AAAGTTTGTCTCTCTAGTGACTTCAATAAAGAAAAAACTAGAAGAGGAGAAAAAAGGATTTCTCAAATTTTAAA  
TATGTAACCTCAGGGATTCAATCCCCAAATGTTTATTAAGTAGCTAGAAATAATTATGTGAAAAAAATGAATAA  
TGGAAAATAGTGAGTCTCAAAATGTTTTTTTTTAACTAAATCTGCAATGAATCTAGATGCAATTAATTTTATTC  
CTTCCAATAAAATTACAATATTTTATAGGTTAAAAATTATTGAGATATAAAGCAGCCATTGGGAAATTGGGAGAAA  
TGATAAACAAATGGAAGAAAGATGTCCCTAACCTACACCCATAGATTACCAAGGTTTCAGTGTACTAGTTTTG  
AATCTGTTCTGAATGGAGTTTTTATACCCTCAATTTCTGGCCTTTGGCTATTTTAGCATTTCAAAGTGACTTCTA  
TGAAGCTTTTTTTTTTAATGTGAAATTTTCAAGATGTTGTTTTTTTATGTAGATACTCCAGGAAGAGTTAAGCAC  
TGCTTTTCAGTTTTTAATATCCACCTTGAGGGGTCGCTGCTTGAGGGCTCTTATCCAGGGGACTTTTTAATTCGGA  
TGTTACTTAATGTGGCTTCTCTAATGTAGTTTCTTTGATTACCGACTACACAATTATGTACCATCACAGTATTAG  
TGGAAGTACCATGTGATTTAATCTCCATTCCCTCAATGTAACCTTAAATATTATGTATGTGTATGTGTT  
TTACTTTTTGTTTTTTATCATCTTTAAATTTCTATTATGGTTTGATTATTATAAAAAATAATGAATTTCTCACTGT  
AAATTTCAAAAAAAATTAACAAAGTATGTGAATTTAAAAATGAGAGCAGTCCCCTCACCTACACAGTTCCA  
CACCCTCAAGGTAACTTATACTTATAATTTGATATGTAACTTCAGATCTTTTTTCTATGCGTAATCAGACA  
TACATATATACTGCAGTGTATCTCACGTATTAATTTTAAAAATCTTTTGTTTTACTTAATTTCTGTTTTTATTAT  
TATTATTATTTGTTTGATCTATTAAGGAAGAACAAGGAAGGGAATGATCTTTACTCAAGAATTTCAAGAAAGTCA  
GCACTGAAGTCCTGACCTATCAGTAGACACATTTGTCCCTTTAGATATTTTAGGATATTCTAGCAAAGCAGGCC  
ATTTCTCCACCTGAAAGTACATAACTTCTATCACTTGCCACATAATTAAGAAGTCACTTAAGCGGTTACTC  
AGACAGTTAATCATAGAAAAGATTATTTGCTTCATCAGTTTCATAGAAAAGATTATTTGCTTCATCAGTTAACTTG  
TTTTTATAAATCAGGGCCTGTGTTTCATACAGAAAGGGCCTGAGATTTCTGCACTTTAAACAAGCTCCTCCTAG  
GTGAGGATGCTGTGGCTGTTCTAATTACATTTTGAGTAGTAAGGTCTACAGCATTGTTCTCAAACCTTGCTACG

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**FIGURE 299B**

TATTGGAATCACCTAAAAAGTTAAAACAAAACATGGATGTCTGGGTCCCGCCCCATAGAGAATGACTTAATTGGC  
ATGGGGTGCAGTCCAGGCATCATGATTTTTAGATTTCACAGTTGGAACCTGTGCAGCAAAGTTGGGAGCTACTG  
ATGGACATGTGAAAAGTAAGTATAAATGGAATAAAATTAATTAGGCTAATAGGCTTAACCCAGGAAATCCTAAGT  
TCCTTGAATATCCAGTTTGCATTTGGGACTCCTCATCATATACTTGGTATATAATACTCTAATAAAAGCTGCCTG  
AGTTGA

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**FIGURE 300**

MSEIRKDTLKAILLELECHFTWNLLKEDIDLFEVEDTIGQOLEFLTTSRLALYNLLAYVKHLKGQNKDALECLE  
QAEI IQQEHSDKEEVRLVTWGN YAWVYYHMDQLEEAQKYTGKIGNVCKKLSSPSNYKLECPETDCEKGWALLK  
FGGKYYQKAKAAFEKALEVEPDNPEFNIGYAITVYRLDDSDREGSVKSFSLGPLRKAVTLNPDNSYIKVFLALKL  
QDVHAEAEGEKYIEEILDQISSQPYVLRYAAKFYRRKNSWNKALELLKKALEVTPTSSFLHHQMGLCYRAQMIQI  
KKATHNRPKGKDKLVDELISSAIFHFKAAMERDSMFAYTDLANMYAEGGQYSNAEDIFRKALRLNITDDHK  
HQIHYHYGRFQEFHRKSENTAIHHYLEALKVKDRSPLRKLTSALKKLSTKRLCHNALDVQSLSALGFVYKLEGE  
KRQAAEYYEKAQKIDPENAEFLTALCELRLSI

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**FIGURE 301**

CGGCTGAGAGGCAGCGAACTCATCTTTGCCAGTACAGGAGCTTGTGCCGTGGCCCACAGCCCACAGCCCACAGCC  
ATGGGCTGGGACCTGACGGTGAAGATGCTGGCGGGCAACGAATTCCAGGTGTCCCTGAGCAGCTCCATGTCGGTG  
TCAGAGCTGAAGGCGCAGATCACCCAGAAGATTGGCGTGCACGCCTTCCAGCAGCGTCTGGCTGTCCACCCGAGC  
GGTGTGGCGCTGCAGGACAGGGTCCCCCTTGCCAGCCAGGGCCTGGGCCCTGGCAGCACGGTCCTGCTGGTGGTG  
GACAAATGCGACGAACCTCTGAGCATCCTGGTGAGGAATAACAAGGGCCGCAGCAGCACCTACGAGGTCCGGCTG  
ACGCAGACCGTGGCCCACCTGAAGCAGCAAGTGAGCGGGCTGGAGGGTGTGCAGGACGACCTGTTCTGGCTGACC  
TTCGAGGGGAAGCCCCCTGGAGGACCAGCTCCCGCTGGGGGAGTACGGCCTCAAGCCCCCTGAGCACCGTGTTCATG  
AATCTGCGCCTGCGGGGAGGCGGCACAGAGCCTGGCGGGCGGAGCTTAAGGGCCTCCACCAGCATCCGAGCAGGAT  
CAAGGGCCGGAAATAAAGGCTGTTGTAAGAGAAT

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**FIGURE 302**

MGWDLTVKMLAGNEFQVSLSSSMSVSELKAQITQKIGVHAFQQLAVHPSGVALQDRVPLASQGLGPGSTVLLVV  
DKCDEPLSILVRNNKGRSSTYEVRLTQTV AHLKQQVSGLEGVQDDLFWLTFEGKPLEDQLPLGEYGLKPLSTVFM  
NLRLRGGGTEPGGRS

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**FIGURE 303A**

CCGGGAGCCCGGGCGCCCTGGAGTGAGGAGGACCGGGAGCTGGCTCTGGAGGCTGCGGAGGCGACGCCGGAGAGA  
ACGAAGCCTCGGCTGGGAGCGGATCTTTTCAAGATGGTTTGGCTGCCTTGGAGATTGGAGATCTGATGCCACGA  
TGAGGACTCACACACGGGGGGCTCCCAGTGTGTTTTTCATATATTTGCTTTGCTTTGTGTGTCAGCCTACATCACCG  
ACGAGAACCAGAAAGTTATGATTCCCTTCACCAATGCCAACTACGACAGCCATCCCATGCTGTACTTCTCCAGGG  
CAGAAGTGGCGGAGCTGCAGCTCAGGGCTGCCAGCTCGCACGAGCACATTGCAGCCCGCCTCACGGAGGCTGTGC  
ACACGATGCTGTCCAGCCCTTGGAAATACCTCCCTCCCTGGGATCCCAAGGACTACAGTGCCCGCTGGAATGAAA  
TTTTTGGAAACAACCTTGGGTGCCTTGGCAATGTTCTGTGTGCTGTATCCTGAGAACATTGAAGCCCGAGACATGG  
CCAAAGACTACATGGAGAGGATGGCAGCGCAGCCTAGTTGGTTGGTGAAGATGCTCCTTGGGATGAGGTCCCGC  
TTGCTCACTCCCTGGTTGGTTTTGCCACTGCTTATGACTTCTTGTACAACCTAGCTGAGCAAGACACAACAGGAGA  
AGTTTCTTGAAGTGATTGCCAATGCCTCAGGGTATATGTATGAACTTCATACAGGAGAGGATGGGGATTTCAAT  
ACCTGCACAATCATCAGCCCACCAACTGTATGGCTTTGCTCAGGGAAGCCTAGTCCTGATGAATCAAGGATATC  
TTCAAGAAGCCTACTTATGGACCAAACAAGTTCTGACCATCATGGAGAAATCTCTGGTCTTGCTCAGGGAGGTGA  
CGGATGGCTCCCTCTATGAAGGAGTTGCGTATGGCAGCTACACCACTAGATCACTCTTCCAATACATGTTTCTCG  
TCCAGAGGCACTTCAACATCAACCACTTTGGCCATCCGTGGCTTAAACAACACTTTGCATTTATGTATAGAACCA  
TCCTGCCAGGGTTTTCAAAGGACTGTGGCTATTGCGGACTCAAATTACAACCTGGTTTTATGGTCCAGAAAGCCAAT  
TAGTGTTCTTGATAAATTTGTGATGCGTAATGGCAGTGGTAACTGGCTAGCTGACCAAATCAGAAGGAACCGTG  
TGGTGAAGGTCCAGGAACACCATCCAAAGGGCAGCGCTGGTGCCTCTGCACACAGAATTTCTCTGGTATGATG  
GCAGCTTGAAATCGGTTCCCTCCAGACTTTGGCACCCCTACACTGCATTATTTTGAAGACTGGGGTGTGCTGA  
CTTATGGAAGTGCACTACCTGCAGAAATCAATAGATCTTTCTTTCTTCAAGTCTGGAAAACCTGGGGGACGTG  
CAATATATGACATTGTCCACAGAAACAATAACAAGATTGGATCAAAGGATGGAGAAATTTAATGCAGGGCATG  
AACATCCTGATCAAACTCATTTACTTTTGCTCCCAATGGTGTGCCTTTTCACTTACTGAGGCTCTGTACGGGGCAA  
AGTACACCTTCTTCAACAATGTTTTGATGTTTTCCCGAGCTGTGTCAAAGAGCTGCTTTTCTCCCTGGGTGGGTG  
AGGTACAGAAAGACTGCTCATCAAATGGTCTAAATACAAGCATGACCTGGCAGCTAGTTGTACGGGGAGGGTGG  
TTGCAGCAGAGGAGAAAAATGGGGTGGTTTTTCATCCAGAGAGAAGGTGTGGGAGCTTATAACCCCCAGCTCAACC  
TGAAGAATGTTTCAAGGAATCTCATCTCTACATCCACAGCTGCTTCTCCTTGTAGACCAAATACACCTGGGAG  
AGGAGAGTCCCTTGGAGACAGCAGCGAGCTTCTTCCATAATGTGGATGTTCCCTTTGAGGAGACTGTGGTAGATG  
GTGTCCATGGGGCTTTCATCAGGCAGAGAGATGGTCTCTATAAAATGTACTGGATGGACGATACTGGCTACAGCG  
AGAAAGCAACCTTTGCCCTCAGTGACATATCCTCGGGGCTATCCCTACAACGGGACAACTATGTGAATGTCACCA  
TGCACCTCCGAAGTCCCATCACCAGGGCAGCTTACCTCTTCATAGGGCCATCTATAGATGTTTCAAGCTTCACTG  
TCCACGGAGACTCTCAGCAACTGGATGTGTTTATAGCCACCAGCAAAACATGCCTACGCCACATACCTGTGGACAG  
GTGAGGCCACAGGACAGTCTGCCCTTGCACAGGTCATTGCTGATCGTCACAAAATCTGTTTGACCGGAATTACAG  
CCATCAAGAGCAGCATTGTCCCTGAGGTGAAGGACATGCTGCTATTGTGGAACAGAACTTGACGATTTTAAAC  
CAGTGTTTTAGCTGCTGGAGAAGCAGATACTGTCCCGAGTCCGGAACACAGCTAGCTTTAGGAAGACTGCTGAAC  
GCCTGCTGAGATTTTCAGATAAGAGACAGACTGAGGAGGCCATTGACAGGATTTTGGCATATCACAGCAACAGC  
AGCAGCAAAGCAAGTCAAAGAAAAACCGAAGGGCAGGCAAAACGCTATAAATTTGTGGATGCTGTCCCTGATATT  
TTGCACAGATTGAAGTCAATGAGAAAAAGATTAGACAGAAAGCTCAGATTTTGGCACAGAAAGAACTACCCATAG  
ATGAAGATGAAGAAATGAAAGACCTTTTAGATTTTGCAGATGTAACATACGAGAAACATAAAAAATGGGGGCTTGA  
TTAAAGGCCGGTTTGGACAGGCACGGATGGTGACAACCTACACACAGCAGGGCCCCATCACTGTCTGCTTCCCTATA  
CCAGGTTGTTCTGATTCTGAACATTGCTATTTTCTTTGTCATGTTGGCAATGCAACTGACTTATTTCCAGAGGG  
CCCAGAGCCTACATGGCCAAAGATGCTTTATGCAGTTCTTCTCATAGATAGCTGTATTTTATTATGGTTGTACT  
CTTCTTGTTCCCAATCACAGTGTTAGCACTGAAAGCTATAAATTACCTGGTCATTTTGTGATCACAAAGTCTATG  
CAAAAAAATTTCTTTACCCAGATTATCAGATTTTTTCCCTCAGATTTCATTTTAAACAAATTAAGGGAAGA  
TATTTTGACACAAGAAAGCAGGAACGTGGAGAAATGGAGCAGGAAAGAAATTATCAAAGCAATAGAAATAGCT  
TGGTGGTCCATGGTGTTTTTTGAAGTATTTGGCAATTGCTAATTGAGCAGTCCATATAGTACTACTTTTAGAAGA  
AACAAAAAGTCTATTTTTTAAAGTAATGTTTTTCTTATGAGAAAAAGGTTTAGATAGAATTGGGTTTTATTAAT  
ATTAATTTAATGCTATTAGCAATTTCCATATACTATATTGTGGAAGAAAGACTGAAGAATACAATCTGAGAAATAT  
AAAAAATTTTAAATGGTATACTCATGTTGAAAGATAAATGTTGCTAAGTCCTGGTATGATGGTGTGAGCTTCCCT  
GGGGAAGTACTTCTTGAGTTATGTAACCAAGGATGTTTTACTACAGATCTGGATGGCTATTACAGATAACATGG



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**FIGURE 303B**

CAAAAAATGATAGCAAGAAGATCATTAAAACTTAAAATATATTTTATTAGAAAACATTTATCTATGAATGAATAT  
TTCCTTGATGCTGGTCTCTGCACACATATGCTTGGTTACTTGCATGCATTTCATTGGTTGTTCAATAAGTGAGATG  
ATTACAGATAATACTGTATTTTCCTTATATGGAAAACCGTTATAGACCCAATAACAACCTAAACCTTTCAAAAGAA  
AATATTTTCTATTATGAATGTTGATTTTCATACCAAAGAAGATGGAGAGTCTAAAATTTGGATATGATTCTTATG  
TTTTTTTAATAGAAAACCTTCTTCAAGTTTATTTTCCTAAATAAACATCATAATTGTGAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 304**

MRTHTRGAPSVFFIYLLCFVSAYITDENPEVMIPFTNANYDSHPMLYFSRAEVAELQLRAASSHEHIAARLTEAV  
HTMLSSPLEYLPPWDPKDYSARWNEIFGNNLGALAMFCVLYPENIEARDMAKDYMERRMAAQP SWLVKDAPWDEVP  
LAHSLVGFATAYDFLYNYLSKTQKEKFLEVIANASGYMYETSYRRGWGFQYLHNHQPTNCMALLTGSLVLMNQGY  
LQEAYLWTKQVLTIMEKSLVLLREVTDGSLYEGVAYGSYTTRSLFQYMFLVQRHFNINHFHGPWLKQHF AFMYRT  
ILPGFQRTVAIADSNYNWFYGPESQLVFLDKFVMRNGSGNWLADQIRNRVVEGPGTPSKGQRWCTLHTEFLWYD  
GSLKSVPPPDPFGTPTLHYFEDWGVVITYGSALPAEINRSFSLFKSGKLGGRAIYDIVHRNKYKDWIKGWRNFNAGH  
EHPDQNSFTFAPNGVPFITEALYGPKYTFFNNVLMFSPAVSKSCFSPWVGQVTEDCSSKWSKYKHDLAASCQGRV  
VAAEEKNGVVFIRGEGVGAYNPQLNLKNVQRNLILLHPQLLLLVDQIHLGEESPLETAASFFHNVDVPFEETVVD  
GVHGAFIRQRDGLYKMYWMDDTGYSEKATFASVTYPRGYPYNGTNYVNVMTMHLRSPITRAAYLFIGPSIDVQSFT  
VHGDSQQLDVF IATSKHAYATYLTWGEATGQSAFAQVIADRHKILFDRNSAIKSSIVPEVKDYAAIVEQNLQHFK  
PVFQLEKQILSRVRNTASFRKTAERLLRFSDKRQTEEAIDRIFAISQQQQQQSKSKKNRRAGKRYKFVDAVPDI  
FAQIEVNEKKIRQKAQILAQKELPIDEDEEMKDLLDFADVTYEKHKNGGLIKGRFGQARMVTTTHSRAPSLASYS  
TRLFLILNIAIFFVMLAMQLTYFQRAQSLHGQRCLYAVLLIDSCILLWLYSSCSQSQC

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**FIGURE 305A**

CGCTCGATCTTGGGACCCACCGCTGCCCTCAGCTCCGAGTCCAGGGCGAGTGCAGAGCACAGCGGGCGGAGGACC  
CCGGGCGCGGGCGCGGACGGCACGCGGGGCATGAACCTGGAGGGCGGGCCGAGGCGGAGAGTTTCGGCATGAGC  
GCGGTGAGCTGCGGCAACGGGAAGCTCCGCCAGTGGCTGATCGACCAGATCGACAGCGGCAAGTACCCCGGGCTG  
GTGTGGGAGAACGAGGAGAAGAGCATCTTCCGCATCCCCTGGAAGCACGCGGGCAAGCAGGACTACAACCGCGAG  
GAGGACGCCGCGCTCTTCAAGGCTTGGGCACGTGTTTAAAGGAAAGTTCCGAGAAGGCATCGACAAGCCGGACCCT  
CCCACCTGGAAGACGCGCCTGCGGTGCGCTTTGAACAAGAGCAATGACTTTGAGGAAGTGGTTGAGCGGAGCCAG  
CTGGACATCTCAGACCCGTACAAAGTGTACAGGATTGTTTCTGAGGGAGCCAAAAAAGGAGCCAAGCAGCTCACC  
CTGGAGGACCCGAGATGTCCATGAGCCACCCCTACACCATGACAACGCCTTACCCTTCGCTCCCAGCCCAGCAG  
GTTCACTACATGATGCCACCCCTCGACCGAAGCTGGAGGGACTACGTCCCGGATCAGCCACACCCGGAAATC  
CCGTACCAATGTCCCATGACGTTTGACCCCGCGGCCACCACTGGCAAGGCCAGCTTGTGAAAATGGTTGCCAG  
GTGACAGGAACCTTTTATGCTTGTGCCACCTGAGTCCCAGGCTCCCGGAGTCCCCACAGAGCCAAGCATAAGG  
TCTGCCGAAGCCTTGGCGTTCTCAGACTGCCGGCTGCACATCTGCCTGTACTACCGGGAAATCCTCGTGAAGGAG  
CTGACCACGTCCAGCCCCGAGGGCTGCCGGATCTCCATGGACATACGTATGACGCCAGCAACCTGGACCAGGTC  
CTGTTCCCTTACCAGAGGACAATGGCCACAGGAAAAACATTGAGAACCCTGCTGAGCCACCTGGAGAGGGGCGTG  
GTCTCTGGATGGCCCCGACGGGCTCTATGCGAAAAGACTGTGCCAGAGCACGATCTACTGGGACGGGCCCTG  
GCGCTGTGCAACGACCGGCCCAACAACTGGAGAGAGACCAGACCTGCAAGCTCTTTGACACACAGCAGTTCTTG  
TCAGAGCTGCAAGCGTTTGCTCACCACGGCCGCTCCTGCCAAGATTCCAGGTGACTCTATGCTTTGGAGAGGAG  
TTTCCAGACCTCAGAGGCAAGAAAGCTCATCACAGCTCACGTAGAACCCTCTGCTAGCCAGACAACCTATATTAT  
TTTGCTCAACAAAACAGTGGACATTTCTGAGGGGTACGATTTACCAGAACACATCAGCAATCCAGAAGATTAC  
CACAGATCTATCCGCCATTCTCTATTCAAGAAATGAAAAATGTCAAGATGAGTGGTTTTCTTTTTCTTTTTTT  
TTTTTTTTTTTTTGATACGGAGATACGGGGTCTTGCTCTGTCTCCAGGCTGGAGTGCAGTGACACAATCTCAGCT  
CACTGTGACCTCCGCCTCTGGGTTCAAGAGACTCTCTGCCTCAGCCTCCCTGGTAGCTGGGATTACAGGTGTG  
AGCCACTGCACCCACCCAAGACAAGTGATTTTCATGTAAATATTTGACTTTAGTGAAAGCGTCCAATTGACTGC  
CCTCTTACTGTTTTGAGGAAGTCAAGAGTGGAGATTTTCAAGTTTCAAGCGGTTGAGGAGAATTGCGGCGAGACAAGCA  
TGGAAGAAATCAGTGACATCTGATTGGCAGATGAGCTTATTTCAAAGGAAGGGTGGCTTTGCATTTTCTTGTTTC  
TGTAAGTGTGATGATTGATGATCACTGTGAAAATGTACCAAGTGATGTGTTTACATTTACTGAAATGCGCTCTT  
TAATTTGTTGTAGATTAGGTCTTGCTGGAAGACAGAGAAAACCTTGCCCTTTCAGTATTGACACTGACTAGAGTGAT  
GACTGCTTGTAGGTATGTCTGTGCCATTTCTCAGGGAAGTAAGATGTAAATTGAAGAAGCCTCACACGTAAAAGA  
AATGTATTAATGTATGTAGGAGCTGCAGTTCTTGTGGAAGACACTTGCTGAGTGAAGGAAATGAATCTTTGACTG  
AAGCCGTGCCTGTAGCCTTGGGGAGGCCCCATCCCCACCTGCCAGCGGTTTCTGGTGTGGGTCCCTCTGCCCA  
CCCTCCTTCCCATTGGCTTTCTCTCCTTGCCCTTCTGGAAGCCAGTTAGTAACTTCTATTTTCTTGAGTCA  
AAAAACATGAGCGCTACTCTTGATGGGACATTTTGTCTGTCTACAATCTAGTAATGTCTAAGTAATGGTTAA  
GTTTTCTTGTCTGCACTTTTGGACCTCATTTCTAGAGATGCTAAAATTCTTCGCATAAAGAAGAAGAAAT  
TAAGGAACATAAACTTAATACTTGAAGTGTGCCCTTCTGTCCAAGTACTTAAGTATCTGTTCCCTTCTCTGT  
GCCACGCTCCTCTGTTTGTGTTGGCTGTCCAGCGATCAGCCATGGCGACACTAAAGGAGGAGGAGCCGGGGACTCC  
CAGGCTGGAGAGCACTGCCAGGACCCACCACTGGAAGCAGGATGGAGCTGACTACGGAAGTGCACACTCAGTGGG  
CTGTTTCTGCTTATTTTCTGTTCTATGCTTCTCGTGCCAATTATAGTTTGACAGGGCCTTAAATTTACTTGG  
CTTTTTCCAAATGCTTCTATTTATAGAAATCCCAAAGACCTCCACTTGCTTAAGTATACCTATCACTTACATTTT  
TGTTGGTTTTGAGAAAGTACAGCAGTAGACTGGGGCGTCACCTCCAGGCCGTTTCTCATACTACAGGATATTTACT  
ATTACTCCCAGGATTCAGCAGAAGATTGCGTTAGCTCTCAAATGTGTGTTCTGCTTTTCTAATGGATATTTTAA  
ATTCATTCAACAAGCACCTAGTAAGTGCTGTATCCCTACATTACACAGTTCAGCCTTTATCAAGCTTAGTG  
AGCAGTGAGCACTGAAACATTATTTTTTAATGTTTAAAAAGTTTCTAATATTAAGTCAGAATATTAATACAATT  
AATATTAATATTAACACAGAAAAGACAAACAGTAGAGAACAGCAAAAAAATAAAAAAGGATCTCCTTTTTTCCCA  
GCCCAAATTTCTCTCTTAAAAGTGTCCACAAGAAGGGGTGTTTATTCTTCCAACACATTTCACTTTTCTGTAAA  
TATACATAAACTTAAAAAGAAAACCTCATGGAGTCATCTTGACACACTTTTCATGCAGTGCTCTTTGTAGCTAA  
ACAGTGAAGATTTACCTCGTTCTGCTCAGAGGCCTTGCTGTGGAGCTCCACTGCCATGTACCCAGTAGGGTTTGA  
CATTTCAATTAGCCATGCAACATGGATATGTATTGGGCAGCAGACTGTGTTTCGTGAAGTGCAGTGATGTATACAT  
CTTATAGATGCAAAGTATTTTGGGGTATATTATCCCTAAGGGAAGATAAAGATGATATTAAGAAGTGTGTTTAC

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**FIGURE 305B**

GGGGCCCTTACCTGTGACCCTCTTTGCTGAAGAATATTTAACCCACACAGCACTTCAAAGAAGCTGTCTTGGAA  
GTCTGTCTCAGGAGCACCCTGTCTTCTTAATTCTCCAAGCGGATGCTCCATTTCAATTGCTTTGTGACTTCTTCT  
TCTTTGTTTTTTTAAATATTATGCTGCTTTAACAGTGGAGCTGAATTTTCTGGAAAATGCTTCTTGGCTGGGGCC  
ACTACCTCCTTTTCTATCTTTACATCTATGTGTATGTTGACTTTTTTAAATTTCTGAGTGATCCAGGGTATGACCT  
AGGGAATGAACTAGCTATGGAAATAACTCAGGGTTAGGAATCCTAGCACTTGTCTCAGGACTCTGAAAAGGAACG  
GCTTCCTCATTTCCTTGCTTGATAAAGTGAATTGGCAAAGTAGAATTTAGTTTGTACTCAGTGGACAGTGCTGT  
TGAAGATTTGAGGACTTGTTAAAGAGCACTGGGTCTATATGGAAAAAATGTATGTGTCTCCCCAGGTGCATTTTCT  
TGGTTTATGTCTTGTCTTGAGATTTTGTATATTTAGGAAAACCTCAAGCAGTAATTAATATCTCCTGGAACACT  
ATAGAGAACCAAGTGACCGACTCATTTACAACCTAGGAAGCCCCTGAGTCCTGAGCGAAAACAGGAGAG  
TTAGTCGCCCTACAGAAAACCCAGCTAGACTATTGGGTATGAACTAAAAAGAGACTGTGCCATGGTGAGAAAAAT  
GTAAAAATCCTACAGTGGAATGAGCAGCCCTTACAGTGTGTGTTACCACCAAGGGCAGGTAGGTATTAGTGTTTGAA  
AAAGCTGGTCTTTGAGCGAGGGCATAAATACAGCTAGCCCCAGGGGTGGAACAACCTGTGGGAGTCTTGGGTACTC  
GCACCTCTTGGCTTTGTTGATGCTCCGCCAGGAAGGCCACTTGTGTGTGCGTGTGAGTTACTTTTTTAGTAACAA  
TTCAGATCCAGTGTAACCTTCCGTTTATTGCTCTCCAGTCACATGCCCCACTTCCCCACAGGTGAAAGTTTTTC  
TGAAGTGTGTTGGGATTGGTTAAGGTCTTTATTTGTATTACGTATCTCCCAAGTCCTCTGTGGCCAGCTGCATCTG  
TCTGAATGGTGCCTGAAGGCTCTCAGACCTTACACACCATTTTGTAAGTTATGTTTTACATGCCCCGTTTTTGAG  
ACTGATCTCGATGCAGGTGGATCTCCTTGAGATCCTGATAGCCTGTTACAGGAATGAAGTAAAGGTCAGTTTTTT  
TTGTATTGATTTTACAGCTTTGAGGAACATGCATAAGAAATGTAGCTGAAGTAGAGGGGACGTGAGAGAAGGGC  
CAGGCCGGCAGGCCAACCTCCTCCAATGGAAATTCCCGTGTGCTTCAAACCTGAGACAGATGGGACTTAACAGG  
CAATGGGGTCCACTTCCCCCTCTTCAGCATCCCCGTACC

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**FIGURE 306**

MNLEGGGRGGEFGMSAVSCGNGKLRQWLIDQIDSGKYPGLVWENEEKSIFRIPWKHAGKQDYNREEDAALFKAWA  
LFKGFREGIDKPDPTWKTRLRCALNKSNDFEELVERSQLDISDPYKVYRIVPEGAKKGAKQLTEDPQMMSH  
PYTMTTPYPSLPAQQVHNYMPPLD RSWRDYVPDQPHPEIPYQCPMTFGPRGHHWQGPACENG CQVTGTFYACAP  
PESQAPGVPT EPSIRSAEALAFSDCRLHICLYYREILVKELTTSSPEGCRISHGHTYDASNLDQVLFYPEDNGH  
RKN IENLLSHLERGVVLWMAPDGLYAKRLCQSTIYWDGPLALCND RPNKLERDQTCKLFD TQQFLSELQAF AHG  
RSLPRFQVTLCFGEEFPDPQRQRKLITAHVEPLLARQLYYFAQQNSGHFLRGYDLPEHISNPEDYHRSIRHSSIQ  
E

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**FIGURE 307**

GGCCACGAAGGCCGGCCCCACCCCGGGACCCCGCCGTCCCCGGGCGCGCGCGGTGGGCACG**ATG**AGCCAG  
GTGCTGGGGAAAGCCGCAGCCGCAGGACGAGGACGACGCGGAGGAGGAGGAGGAGGATGAGCTGGTGGGGCTA  
GCGGACTACGGAGACGGGCCCCGACTCCTCCGACGCCGATCCGGACAGCGGCACAGAGGAGGGAGTTCTGGACTTC  
AGTGACCCCTTCAGCACTGAAGTGAAGCCGAGAATCCTGCTCATGGGCCTGAGGAGAAGCGGCAAGTCGTCTATT  
CAGAAAGTTGTCTTTCACAAAATGTCTCCCAACGAACTCTGTTCTTGAGAGCACTAATAAGATATGCCGGGAA  
GATGTTTCCAACAGCTCCTTTGTCAATTTTCAGATTTGGGACTTCCCAGGACAGATTGACTTTTTTGACCCTACA  
TTTGACTATGAGATGATCTTCCGGGGAACAGGAGCACTGATATTTGTCAATTGACTCACAGGATGATTACATGGAA  
GCCCTGGCCAGGCTCCACCTCACGGTGACCAGGGCTACAAAGTGAATACTGACATCAACTTCGAGGTGTTTATT  
CATAAAGTGGATGGTCTGTGATGACCACAAAATTGAAACCCAAAGAGATATTCACCAGAGGGCAAACGATGAC  
CTTGACAGATGCTGGATTAGAAAAAATTCACCTCAGCTTTTATCTGACAAGCATATATGATCATTCAATATTTGAA  
GCTTTTAGCAAAGTTGTTTCAGAAACTGATTCCACAACCTCCCAACTCTGGAGAATTTGCTGAACATCTTTATCTCA  
AATTCTGGAATTGAAAAGGCATTTCTATTTGATGTGGTCAGTAAAATTTATATTGCAACTGATAGTACTCCGGTG  
GATATGCAAACCTATGAGCTCTGCTGTGATATGATAGATGTGGTTATTGACATCTCTTGATTTTATGGTCTCAAA  
GAAGATGGAGCAGGAACCCCTATGACAAGGAATCCACAGCCATCATAAAGCTTAATAATACAACCGTGCTTTAT  
TTAAAAGAGGTGACAAAGTTCCTGGCTCTCGTTTGCTTTGTGTCAGAGAGGAAAGCTTTGAAAGAAAAGGGCTAATT  
GACTATAATTTTCATTGCTTCCGGAAGGCCATTCA TGAAGTTTTTGAGGTGAGAATGAAAGTAGTAAATCTCGA  
AAGGTTTCAGAAATCGGCTGCAGAAGAAAAAGAGAGCCACCCCTAATGGGACCCCTAGAGTGCTGCTG**TAG**GTGAGG  
TTTCAGGAATGTCTTTTGAAATCAGACCTTATCCATGAGGCTGCTGCGCCATGTTGCACTAAAGGAAGAGGAAGA  
AGGAGATTGGGACACATACCATTGATTTGTTGTTAAAAAATAAATTCCTGCAACCCTCTTGATCTTCTCTTT  
TATAATTAAAGTCAGCACTTGAAGCGG

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**FIGURE 308**

MSQVLGKPPQDEDDAEDEEEDELVGLADYGDGPDSSDADPD SGTEEGVLD FSDPFSTE VKPRILLMGLRRSGK  
SSIQKVVFHKMSPNETLFLESTNKICREDVSNS SFVNFQIWDFPGQIDFFDPTFDYEMIFRGTGALIFVIDSQDD  
YMEALARLHLTVTRAYKVNTDINF EVFIHKVDGLSDDHKIETQRDIHQRANDDLADAGLEKIHLSFYLT SIYDHS  
IFEAFSKVVQKLIPQLPTLENLLNIFISNSGIEKAFLFDVVSKIYIATDSTPVDMQTYELCCDMIDVVIDISCIY  
GLKEDGAGTPYDKESTAI IKLNNTTVLYLKEVTKFLALVCFVREESFERKGLIDYNFHC FRKAIHEVFEVRMKVV  
KSRKVQNRLQKKKRATPNGTPRVLL

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**FIGURE 309**

CCCGCGTG CATACGGTTGCCGGCATGGCACATTACAAC TTCAAGAAAATTACGGTGGTGCCGTCCGCCAAGGACT  
TCATAGACCTCACGTTGTCGAAGACTCAACGAAAGACTCCAACCGTTATTTCATAAACATTACCAAATACATCGCA  
TTAGACATTTTTACATGAGAAAAGTCAAATTTACTCAACAGAATTACCATGATAGACTTTACACAAATTTCAACAG  
ATTTCCCCAAATTGGATGATATTCATCCGTTCTATGCTGATTTGATGAATATTCTCTACGACAAGGATCATTACA  
AGTTGGCTCTGGGGCAAATAAATATTGCCAAAAATTTAGTGGACAATGTTGCTAAAGATTATGTGCGACTGATGA  
AGTATGGCGACTCTCTCTACCGCTGCAAACAGCTGAAGCGTGCGGCCCTGGGACGGATGTGCACAGTGATCAAGA  
GGCAGAAGCAGAGTTTGGAGTATTTGGAGCAAGTGCGTCAGCATTTATCCCGTTTGCCAACCATTGATCCGAATA  
CCAGGACCCCTGCTTTTGTGTGGGTACCCAAATGTTGGGAAGTCCAGCTTCATCAACAAGGTGACGAGAGCAGACG  
TGGATGTCCAGCCCTATGCGTTTCAACCAAGTCTCTGTTTGTGGGCACATGGATTATAAGTATCTACGTTGGC  
AGGTTGTAGACACTCCTGGGATCCTGGACCACCCTCTGGAGGATAGGAACACCATCGAGATGCAGGCCATCACTG  
CCCTGGCCCCACCTCCGTGCTGCGGTCTGTATGTGATGGATTTGTCTGAGCAGTGTTGGGCATGGGCTGAGGGAGC  
AGCTAGAACTCTTCCAGAACATCAGACCTCTCTTCATCAACAAGCCTCTCATAGTTGTAGCCAACAAATGTGATG  
TGAAGAGAATAGCTGAAC TTTCTGAAGATGATCAGAAAATATTTACAGATTTGCAGTCTGAAGGATTCCTGTAA  
TAGAGACCAGCACCCCTGACTGAGGAAGGTGTTATTAAGTTAAAACAGAGGCTTGCGATAGGCTTTTGGCTCATC  
GAGTGGAAACCAAAATGAAGGGAAAATAAAGTGAATGAGGTGCTGAATAGACTGCACCTGGCTATCCCAACCAGGA  
GGGACGATAAGGAGAGGCCCTTTTCATCCCTGAAGGAGTGGTGGCTCGCAGGAAGAGGATGGAAACTGAGGAGT  
CCAGGAAGAAGAGGGAACGAGATCTTGAGCTGGAAATGGGAGATGATTATATTTGGATCTTCAGAAGTACTGGG  
ATTTAATGAATTTGTCTGAAAAACATGATAAGATACCAGAAATCTGGGAAGGCCATAATATAGCTGATTATATTG  
ATCCAGCCATCATGAAGAAATTGGAAGAATTAGAAAAAGAAGAAGAGCTGAGAACAGCTGCTGGAGAGTATGACA  
GTGTATCTGAGAGTGAAGACGAAGAGATGCTGGAAATCCGACAGCTGGCAAAGCAAATTCGAGAGAAAAAGAAGT  
TGAAAATTCTGGAGTCCAAAGAAAAAGAATACACAGGGACCCAGGATGCCGCGAACTGCTAAGAAGGTTTCAGAGGA  
CAGTTTTGGAGAAGGAGATGCGTAGTCTTGGTGTTGACATGGACGATAAAGACGATGCCCATTACGCAGTCCAGG  
CAAGAAGATCCCGGAGCATCACTAGGAAAAGAAAGCGGGAAGACTCTGCTCCCCCGTCTCTGTGGCCCCGAGTG  
GGAGTTGCTCTCGAACTCCACGTGACGTTTCTGGTCTTAGGGATGTCAAGATGGTGAAGAAAAGCCAAGACTATGA  
AGAATGCTCAGAAGAAGATGAATCGGTTGGGGAAGAAAGGGGAGGCGGATAGACACGTGTTTGATATGAAGCCCA  
AGCACTTGCTGTCTGGGAAGAGGAAAGCTGGTAAAAAGGACAGGAGATAGTATCCGTTTGGTTGGCGTGCTTCG  
CTAGAGTGTTGCTGTTTATTTCCCTGGTTTGGTACAGTATGGTTTCATGAAATTGGAGCTCTGTACAACTGAAAA  
AGACAAAATAAGTAAAGCACTTGTTGCTTTGCTGAAACTATGGTTAACCTATATAGGTGTGGGAAATTTTTGT  
CACTGCATAATATTACAAATATTTTGAGTAGACAGTGTTTCCACATTTAATGGAGTATCAGTTGCTTCAGATTTT  
CAGAACTGGGAAGATTTACTGGTGTAACTGGGTGTTTTTGATGGAGAAAAACCTTATTTCTTTTGTAAAGAGCT  
GGGAGCAAACACGTTTATGAGTGTGTCGGAATCCCGTGCTTAAATACGCTCTTAAATTATTTCTAGTCTTATT  
TTACAATGTCTCATTGTAGTCTGTCTTCAACTATTTTATCCAAAATAAACCTCCAGAAGAACTAAAAAAAAAA  
AAAAAAAAAAAAAA



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**FIGURE 310**

MAHYNFKKITVVP  
SAKDFIDLTLSKTQ  
RKTPTVIHKHYQI  
HRIRHFYMRKVKF  
TQQNYHDRLSQIL  
TDFPKLDDI  
HPFYADLMNII  
YDKDHYKLALGQ  
INIAKNLVDNVA  
KDYVRLMKYGDS  
LYRCKQLKRAAL  
GRMCTVIKRQKQ  
SLEY  
LEQVRQHLSRL  
PTIDPNTRTLL  
LCGYPNVGKSSF  
INKVTRADVDP  
QPYAFTTKSLF  
VGHMDYKYLRW  
QVVDTPGI  
LDHPLEDRNT  
IEMQAITALAH  
LRAAVLYVMDL  
SEQCGHGLREQ  
LELFQNI  
RPLFINKPLIV  
VANKCDVKRIA  
ELS  
EDDQKIFTDL  
QSEGFPVIET  
STLTEEGVIK  
VKTEACDRLL  
AHRVETKMKG  
NKNVNEVLN  
RLHLAIPTR  
RDDKERPP  
FIPEGVVAR  
RKRMETESR  
KKRERDLE  
LEMGGDYI  
LDLQKYWD  
LMNLSEKH  
DKIPEI  
WEGHNI  
ADYIDPAI  
MKKL  
EELEKEEEL  
RTAAGEYD  
SVSESEDE  
EMLEIRQL  
AKQIREK  
KKLKILES  
KEKNTQ  
GPRMPRT  
AKKVQRT  
VLEKEMR  
SLGVDMD  
DKDDAHY  
AVQARRS  
R SITRKR  
KREDSAP  
PSSVAR  
SGSCSR  
TPRDV  
SGLRDV  
KVMV  
KKAKT  
MKNAQ  
KKMN  
RLGKKGE  
ADRHV  
FDMKPK  
HLLSG  
KRKAG  
KKD  
RR

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**FIGURE 311A**

TCCTGGCATCAGTTACTGTGTTGACTCACTCAGTGTGGGATCACTCACTTTCCCCCTACAGGACTCAGATCTGG  
GAGGCAATTACCTTCGGAGAAAAACGAATAGGAAAACTGAAGTGTTACTTTTTTAAAGCTGCTGAAGTTTGT  
GGTTTCTCATTGTTTTTAAGCCTACTGGAGCAATAAAGTTTGAAGAACTTTTACCAGGTTTTTTTTATCGCTGCC  
TTGATATACACTTTTCAAAATGCTTTGGTGGGAAGAAGTAGAGGACTGTTATGAAAGAGAAGATGTTCAAAAGAA  
AACATTACAAAATGGGTAAATGCACAATTTTCTAAGTTTGGGAAGCAGCATATTGAGAACCCTCTTCAGTGACCT  
ACAGGATGGGAGGCGCTCCTAGACCTCCTCGAAGGCCTGACAGGGCAAAAACCTGCCAAAAGAAAAAGGATCCAC  
AAGAGTTCATGCCCTGAACAATGTCAACAAGGCACCTGCGGGTTTTGCGAACAATAATGTTGATTTAGTGAATAT  
TGGAAGTACTGACATCGTAGATGGAATCATAACTGACTCTTGGTTTTGATTGGAATATAATCCTCCACTGGCA  
GGTCAAAAATGTAATGAAAAATATCATGGCTGGATTGCAACAAACCAACAGTGAAAAGATTCTCCTGAGCTGGGT  
CCGACAATCAACTCGTAATTATCCACAGGTTAATGTAATCAACTTCACCACCAGCTGGTCTGATGGCCTGGCTTT  
GAATGCTCTCATCCATAGTCATAGGCCAGACCTATTTGACTGGAATAGTGTGGTTTGCCAGCAGTCAGCCACACA  
ACGACTGGAACATGCATTCAACATCGCCAGATATCAATTAGGCATAGAGAACTACTCGATCCTGAAGATGTTGA  
TACCACCTATCCAGATAAGAAGTCCATCTTAATGTACATCACATCACTCTTCCAAGTTTGCCTCAACAAGTGAG  
CATTGAAGCCATCCAGGAAGTGGAATGTTGCCAAGGCCACCTAAAGTGACTAAAGAAGAACATTTTCAGTTACA  
TCATCAAATGCACTATTCTCAACAGATCAGGTCAGTCTAGCACAGGGATATGAGAGAACTTCTTCCCCTAAGCC  
TCGATTCAAGAGCTATGCCTACACACAGGCTGCTTATGTCACCACCTCTGACCCTACACGGAGCCCATTTCCTTC  
ACAGCATTTTGAAGCTCCTGAAGACAAGTCATTGTCAGGTTTATTGATGGAGAGTGAAGTAAACCTGGACCGTTA  
TCAAACAGCTTTAGAAGAAGTATTATCGTGGCTTCTTTCTGCTGAGGACACATTGCAAGCACAAGGAGAGATTT  
TAATGATGTGGAAGTGGTGAAAGACCAGTTTCATACTCATGAGGGGTACATGATGGATTTGACAGCCCATCAGGG  
CCGGGTTGGTAATATTCTACAATTGGGAAGTAAGCTGATTGGAACAGGAAAATTATCAGAAGATGAAGAACTGA  
AGTACAAGAGCAGATGAATCTCTAAATTCAAGATGGGAATGCCTCAGGGTAGCTAGCATGGAAAAACAAAGCAA  
TTTACATAGAGTTTAAATGGATCTCCAGAATCAGAACTGAAAGAGTTGAATGACTGGCTAACAAAAACAGAAGA  
AAGAACAAGGAAAATGGAGGAAGAGCCTCTTGGACCTGATCTTGAAGACCTAAAACGCCAAGTACAACAACATAA  
GGTGCTTCAAGAAGATCTAGAACAAGAACAAGTCAGGGTCAATTCTCTCACTCACATGGTGGTGGTAGTTGATGA  
ATCTAGTGGAGATCACGCAACTGCTGCTTTGGAAGAACAACCTTAAGGTATTGGGAGATCGATGGGCAAACATCTG  
TAGATGGACAGAAGACCGCTGGGTTCTTTTACAAGACATCCTTCTCAAATGGCAACGTCTTACTGAAGAACAGTG  
CCTTTTTAGTGCATGGCTTTTCAGAAAAAGAAGATGCAGTGAACAAGATTACACAACTGGCTTTAAAGATCAAAA  
TGAAATGTTATCAAGTCTTCAAAAACCTGGCCGTTTTTAAAGCGGATCTAGAAAAGAAAAAGCAATCCATGGGCAA  
ACTGTATTCACTCAAAACAAGATCTTCTTTCAACACTGAAGAATAAGTCAGTGACCCAGAAGACGGAAGCATGGCT  
GGATAACTTTGCCCGGTGTTGGGATAATTTAGTCCAAAAACTTGAAAAGAGTACAGCACAGATTTACAGGCTGT  
CACCACCACTCAGCCATCACTAACACAGACAACCTGTAATGGAACAGTAACCTACGGTGACCACAAGGGAACAGAT  
CCTGGTAAAGCATGCTCAAGAGGAACCTTCCACCACCACCTCCCCAAAAGAAGAGGCAGATTACTGTGGATTCTGA  
AATTAGGAAAAGGTTGGATGTTGATATAACTGAACTTCACAGCTGGATTACTCGCTCAGAAGCTGTGTTGCAGAG  
TCCTGAATTTGCAATCTTTTCGGAAGGAAGGCAACTTCTCAGACTTAAAAGAAAAAGTCAATGCCATAGAGCGAGA  
AAAAGCTGAGAAGTTTCAGAAAACCTGCAAGATGCCAGCAGATCAGCTCAGGCCCTGGTGGAACAGATGGTGAATGA  
GGGTGTTAATGCAGATAGCATCAAACAAGCCTCAGAACAACCTGAACAGCCGGTGGATCGAATTCTGCCAGTTGCT  
AAGTGAGAGACTTAACCTGGCTGGAGTATCAGAACAACATCATCGCTTTCTATAATCAGCTACAACAATTGGAGCA  
GATGACAACCTACTGCTGAAAACCTGGTTGAAAATCCAACCACCACCCCATCAGAGCCAACAGCAATTTAAAGTCA  
GTTAAAAATTTGTAAGGATGAAGTCAACCGGCTATCAGGTCTTCAACCTCAAATTGAACGATTAAAAATTCAAAG  
CATAGCCCTGAAAGAGAAAGGACAAGGACCCATGTTCTGGATGCAGACTTTGTGGCCTTTACAAATCATTTTAA  
GCAAGTCTTTTCTGATGTGCAGGCCAGAGAGAAAGAGCTACAGACAATTTTGTACACTTTGCCACCAATGCGCTA  
TCAGGAGACCATGAGTGCCATCAGGACATGGGTCCAGCAGTCAGAAACCAAACCTCTCCATACCTCAACTTAGTGT  
CACCAGCTATGAAATCATGGAGCAGAGACTCGGGGAATTGCAGGCTTTACAAAGTTCTCTGCAAGAGCAACAAAG  
TGGCCTATACTATCTCAGCACCCTGTGAAAAGAGATGTCGAAGAAAGCGCCCTCTGAAATTAGCCGGAAAATATCA  
ATCAGAATTTGAAGAAATTGAGGGACGCTGGAAGAAGCTCTCCTCCAGCTGGTTGAGCATTGTCAAAAGCTAGA  
GGAGCAAATGAATAAACTCCGAAAAATTCAGAATCACATACAAACCCTGAAGAAATGGATGGCTGAAGTTGATGT  
TTTTCTGAAGGAGGAATGGCCTGCCCTTGGGGATTTCAGAAATTCTAAAAAGCAGCTGAAACAGTGCAGACTTTT  
AGTCAGTGATATTCAGACAATTTCAGCCCAGTCTAAACAGTGTCAATGAAGGTGGGCAGAAGATAAAGAATGAAGC

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**FIGURE 311B**

AGAGCCAGAGTTTGCTTCGAGACTTGAGACAGAACTCAAAGAACTTAACACTCAGTGGGATCACATGTGCCAACA  
GGTCTATGCCAGAAAAGGAGGCCTTGAAGGGAGGTTTGGAGAAAACCTGTAAGCCTCCAGAAAGATCTATCAGAGAT  
GCACGAATGGATGACACAAGCTGAAGAAGAGTATCTTGAGAGAGATTTTGAATATAAACTCCAGATGAATTACA  
GAAAGCAGTTGAAGAGATGAAGAGAGCTAAAGAAGAGGCCCAACAAAAAGAAAGCGAAAGTGAAACTCCTTACTGA  
GTCTGTAAATAGTGTATAGCTCAAGCTCCACCTGTAGCACAAAGAGGCCTTAAAAAGGAACCTTGAAACTCTAAC  
CACCAACTACCAGTGGCTCTGCACTAGGCTGAATGGGAAATGCAAGACTTTGGAAGAAGTTTGGGCATGTTGGCA  
TGAGTTATTGTCATACTTGGAGAAAGCAAACAAGTGGCTAAATGAAGTAGAATTTAACTTAAACCCTGAAAA  
CATTCCTGGCGGAGCTGAGGAAATCTCTGAGGTGCTAGATTCACTTGAAAATTTGATGCGACATTCAGAGGATAA  
CCCAAATCAGATTCGCATATTGGCACAGACCCTAACAGATGGCGGAGTCATGGATGAGCTAATCAATGAGGAACT  
TGAGACATTTAATTTCTCGTTGGAGGGAACCTACATGAAGAGGCTGTAAGGAGGCAAAAGTTGCTTGAACAGAGCAT  
CCAGTCTGCCCAGGAGACTGAAAAATCCTTACACTTAATCCAGGAGTCCCTCACATTCATTGACAAGCAGTTGGC  
AGCTTATATTGCAGACAAGGTGGACGCAGCTCAAATGCCTCAGGAAGCCCAGAAAATCCAATCTGATTGACAAG  
TCATGAGATCAGTTTAGAAGAAATGAAGAAACATAATCAGGGGAAGGAGGCTGCCCAAAGAGTCTGTCTCAGAT  
TGATGTTGCACAGAAAAAATTACAAGATGTCTCCATGAAGTTTCGATTATTCCAGAAACCAGCCAATTTTGAGCA  
GCGTCTACAAGAAAGTAAGATGATTTTAGATGAAGTGAAGATGCACTTGCTGCATTGGAAACAAAGAGTGTGGA  
ACAGGAAGTAGTACAGTCACAGCTAAATCATTGTGTGAACCTTGATAAAAGTCTGAGTGAAGTGAAGTCTGAAGT  
GGAAATGGTGATAAAGACTGGACGTCAGATTGTACAGAAAAAGCAGACGGAAAAATCCCAAAGAACTTGATGAAAG  
AGTAACAGCTTTGAAATTGCATTATAATGAGCTGGGAGCAAAGGTAACAGAAAGAAAGCAACAGTTGGAGAAATG  
CTTGAAATTGTCCCGTAAGATGCGAAAGGAAATGAATGTCTTGACAGAATGGCTGGCAGCTACAGATATGGAATT  
GACAAAGAGATCAGCAGTTGAAGGAATGCCTAGTAATTTGATTCTGAAGTTGCCTGGGGAAAGGCTACTCAAAA  
AGAGATTGAGAAACAGAAGGTGCACCTGAAGAGTATCACAGAGGTAGGAGAGGCCTTGAAAACAGTTTGGGCAA  
GAAGGAGACGTTGGTGGAAAGATAAACTCAGTCTTCTGAATAGTAACTGGATAGCTGTCACCTCCCAGCAGAAGA  
GTGGTTAAATCTTTTGTGGAAATACCAGAAACACATGGAACTTTTGACCAGAATGTGGACCACATCACAAAGTG  
GATCATTGAGGCTGACACACTTTTGGATGAATCAGAGAAAAAGAAACCCCAAGCAAAAAGAACGCTGCTTAAGCG  
TTTAAAGGCAGAACTGAATGACATACGCCCAAAGGTGGACTCTACACGTGACCAAGCAGCAAACCTTGATGGCAA  
CCGCGGTGACCACTGCAGGAAATTAGTAGAGCCCCAAATCTCAGAGCTCAACCATCGATTGTCAGCCATTTTACA  
CAGAAATTAAGACTGGAAAGGCCTCCATTCTTTGAAGGAATTGGAGCAGTTTAACTCAGATATACAAAAATTGCT  
TGAACCACTGGAGGCTGAAATTCAGCAGGGGGTGAATCTGAAAGAGGAAGACTTCAATAAAGATATGAATGAAGA  
CAATGAGGGTACTGTAAAAGAATTGTTGCAAAGAGGAGACAACCTTACAACAAAGAAATCACAGATGAGAGAAAGCG  
AGAGGAAATAAAGATAAAACAGCAGCTGTTACAGACAAAACATAATGCTCTCAAGGATTTGAGGTCTCAAAGAAG  
AAAAAAGGCTCTAGAAATTTCTCATCAGTGGTATCAGTACAAGAGGCAGGCTGATGATCTCTGAAATGCTTGGA  
TGACATTGAAAAAAAATTAGCCAGCCTACCTGAGCCAGAGATGAAAGGAAAAATAAAGGAAATTGATCGGGAATT  
GCAGAAGAAGAAAGAGGAGCTGAATGCAGTGCCTAGGCAAGCTGAGGGCTTGCTGAGGATGGGGCCGCAATGGC  
AGTGGAGCCAACCTCAGATCCAGCTCAGCAAGCGCTGGCGGGAAATTGAGAGCAAATTTGCTCAGTTTCGAAGACT  
CAACTTTGCACAAATTCACACTGTCCGTGAAGAAACGATGATGGTGATGACTGAAGACATGCCTTTGGAAATTTCT  
TTATGTGCTTCTACTTATTTGACTGAAATCACTCATGTCTCACAAGCCCTATTAGAAGTGGAACTTCTCAA  
TGCTCCTGACCTCTGTGCTAAGGACTTTGAAGATCTCTTTAAGCAAGAGGAGTCTCTGAAGAATATAAAAGATAG  
TCTACAACAAAGCTCAGGTCGGATTGACATTATTCATAGCAAGAAGACAGCAGCATTGCAAGTGCAACGCCCTGT  
GGAAAGGGTGAAGCTACAGGAAGCTCTCTCCAGCTTGATTTCCAATGGGAAAAAGTTAAACAAAATGTACAAGGA  
CCGACAAGGGCGATTGACAGATCTGTTGAGAAATGGCGGCGTTTTTCATTATGATATAAAGATATTTAATCAGTG  
GCTAACAGAAGCTGAACAGTTTCTCAGAAAGACACAAATTCCTGAGAATTGGGAACATGCTAAATACAAATGGTA  
TCTTAAGGAACCTCCAGGATGGCATTGGGCAGCGGCAAACTGTTGTCAGAACATTGAATGCAACTGGGGAAGAAAT  
AATTCAGCAATCCTCAAAAACAGATGCCAGTATTTACAGGAAAAATTTGGGAAGCCTGAATCTGCGGTGGCAGGA  
GGTCTGCAAACAGCTGTGACAGAGAAAAAAGAGGCTAGAAGAACAAAGAATATCTTGTCAGAAATTTCAAAGAGA  
TTTAAATGAATTTGTTTTATGGTTGGAGGAAGCAGATAACATTGCTAGTATCCCCTTGAACCTGGAAAAGAGCA  
GCAACTAAAAGAAAAGCTTGAGCAAGTCAAGTTACTGGTGGAAAGAGTTGCCCTGCGCCAGGGAATTCTCAAACA  
ATTAATGAAACTGGAGGACCCGTGCTTGTAAGTGCTCCCATAGCCCAGAAGAGCAAGATAAACTTGAAAATAA  
GCTCAAGCAGACAAATCTCCAGTGGATAAAGGTTTCCAGAGCTTTACCTGAGAAACAAGGAGAAATTGAAGCTCA

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**FIGURE 311C**

AATAAAAGACCTTGGGCAGCTTGAAAAAAGCTTGAAGACCTTGAAGAGCAGTTAAATCATCTGCTGCTGTGGTT  
ATCTCCTATTAGGAATCAGTTGGAAATTTATAACCAACCAACCAAGAAGGACCATTGACGTTTCAGGAACTGA  
AATAGCAGTTCAAGCTAAACAACCGGATGTGGAAGAGATTTTGTCTAAAGGGCAGCATTGTTACAAGGAAAAACC  
AGCCACTCAGCCAGTGAAGAGGAAGTTAGAAGATCTGAGCTCTGAGTGGGAAGGCGGTAAACCGTTTACTTCAAGA  
GCTGAGGGCAAAGCAGCCTGACCTAGCTCCTGGACTGACCACTATTGGAGCCTCTCCTACTCAGACTGTTACTCT  
GGTGACACAACCTGTGGTTACTAAGGAACTGCCATCTCCAAACTAGAAAATGCCATCTTCTTGATGTTGGAGGT  
ACCTGCTCTGGCAGATTTCAACCGGGCTTGGACAGAACTTACCGACTGGCTTTCTCTGCTTGATCAAGTTATAAA  
ATCACAGAGGGTGATGGTGGGTGACCTTGAGGATA TCAACGAGATGATCATCAAGCAGAAGGCAACAATGCAGGA  
TTTGGAAACAGAGGCGTCCCCAGTTGGAAGAACTCATTACCGCTGCCCCAAAATTTGAAAAACAAGACCAGCAATCA  
AGAGGCTAGAACAATCATTACGGATCGAATTGAAAGAATTCAGAATCAGTGGGATGAAGTACAAGAACACCTTCA  
GAACCGGAGGCAACAGTTGAATGAAATGTTAAAGGATTCAACACAATGGCTGGAAGCTAAGGAAGAAGCTGAGCA  
GGTCTTAGGACAGGCCAGAGCCAAGCTTGAGTCATGGAAGGAGGGTCCCTATACAGTAGATGCAATCCAAAAGAA  
AATCACAGAAACCAAGCAGTTGGCCAAAGACCTCCGCCAGTGGCAGACAAATGTAGATGTGGCAAATGACTTGGC  
CCTGAAACTTCTCCGGGATTATTCTGCAGATGATACAGAAAAGTCCACATGATAACAGAGAATATCAATGCCTC  
TTGGAGAAGCATTCATAAAAGGGTGAGTGAGCGAGAGGCTGCTTTGGAAGAACTCATAGATTACTGCAACAGTT  
CCCCCTGGACCTGAAAAAGTTTCTTGCTGGCTTACAGAAGCTGAAACAATGCCAATGTCTTACAGGATGCTAC  
CCGTAAGGAAAGGCTCCTAGAAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGA  
AATTGAAGCTCACACAGATGTTTATCACAACTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGGAAGGTTT  
CGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGAGTGAAGTTCGAAAAAGTCTCT  
CAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGAAGCGTCTGCACCTTTCTCTGCAGGAAGTCTGGT  
GTGGCTACAGCTGAAAGATGATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCAGCAGTTCAGAAGCA  
GAACGATGTACATAGGGCCTTCAAGAGGGAATTGAAAACCTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGT  
ACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTGA  
GGAGAGAGCCCAGAATGTCACCTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAA  
CCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCTTGAAGAGACTCCAGGAAGTTCAGAGGCCACGGA  
TGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCCGTGGGCGATCTCCTCATTGA  
CTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACCTTCAGAGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCA  
CGTCAATGACCTTGCTCGCCAGCTTACCACCTTTGGGCATTAGCTCTCACCCTATAACCTCAGCACTCTGGAAGA  
CCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCACAGGGA  
CTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAA  
AGTGCCCTACTATATCAACCACGAGACTCAAACAACCTTGCTGGGACCATCCCCAAATGACAGAGCTCTACCAGTC  
TTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCT  
TTGCTTGATCTCTTGAGCCCTGTCAGCTGCATGTGATGCCTTGACCAGCACAACCTCAAGCAAAATGACCAGCC  
CATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCTGGAGCAAGAGCACAACAATTTGGT  
CAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGAT  
CCGTGTCCTGTCTTTTAAAGCTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACAAGTACAGATACCTTTT  
CAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAAT  
TCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCGGAGCTGCTTCCAATT  
TGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTCCTAGACTGGATGAGACTGGAACCCCAAGTCCATGGTGTG  
GCTGCCCGTCTCTGCACAGAGTGGCTGCTGCAGAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTG  
TCCAATCATTGGATTACAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGG  
TCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGT  
TCGAGACTTTGCCAAGGTACTAAAAACAAATTTGCAACCAAAAGGTATTTTGCGAAGCATCCCCGAATGGGCTA  
CCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAGCTCCCGTTACTCTGATCAACTTCTGGCCAGTAGA  
TTCTGCGCCTGCCTCGTCCCTCAGCTTTCACACGATGATACTCATTACGCATTGAACATTATGCTAGCAGGCT  
AGCAGAAATGGAACAGCAATGGATCTTATCTAAATGATAGCATCTCTCCTAATGAGAGCATAGATGATGAACA  
TTTGTTAATCCAGCATTACTGCCAAAGTTTGAACCAGGACTCCCCCTGAGCCAGCCTCGTAGTCTGCCCAGAT  
CTTGATTTCTCTAGAGAGTGAGGAAAGAGGGGAGCTAGAGAGAATCCTAGCAGATCTTGAGGAAGAAAACAGGAA

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**FIGURE 311D**

TCTGCAAGCAGAATATGACCGTCTAAAGCAGCAGCACGAACATAAAGGCCTGTCCCCACTGCCGTCCCCTCCTGA  
AATGATGCCCACCTCTCCCCAGAGTCCCCGGGATGCTGAGCTCATTGCTGAGGCCAAGCTACTGCGTCAACACAA  
AGGCCGCCTGGAAGCCAGGATGCAAATCCTGGAAGACCACAATAAACAGCTGGAGTCACAGTTACACAGGCTAAG  
GCAGCTGCTGGAGCAACCCAGGCAGAGGCCAAAGTGAATGGCACAACGGTGTCTCTCTCTTCTACCTCTCTACA  
GAGGTCCGACAGCAGTCAGCCTATGCTGCTCCGAGTGGTTGGCAGTCAAACCTTCGGACTCCATGGGTGAGGAAGA  
TCTTCTCAGTCCTCCCCAGGACACAAGCACAGGGTTAGAGGAGGTGATGGAGCAACTCAACAACCTCTTCCCTAG  
TTCAAGAGGAAGAAATACCCCTGGAAAGCCAATGAGAGAGGACACAATGTAGGAAGTCTTTTCCACATGGCAGAT  
GATTTGGGCAGAGCGATGGAGTCCTTAGTATCAGTCATGACAGATGAAGAAGGAGCAGAATAAATGTTTTACAAC  
TCCTGATTCCCGCATGGTTTTTATAATATTCATACAACAAAGAGGATTAGACAGTAAGAGTTTACAAGAAATAAA  
TCTATATTTTTGTGAAGGGTAGTGGTATTATACTGTAGATTTTCAGTAGTTTCTAAGTCTGTTATTGTTTTGTAA  
CAATGGCAGGTTTTACACGTCTATGCAATTGTACAAAAAGTTTATAAGAAAACCTACATGTAAATCTTGATAGCT  
AAATAACTTGCCATTTCTTTATATGGAACGCATTTTGGGTTGTTTTAAAAATTTATAACAGTTATAAAGAAAGATT  
GTAACTAAAGTGTGCTTTATAAAAAAAGTTGTTTATAAAAAACCCCTAAAAACAAAACACACACACACAC  
ACATACACACACACACACAAAACCTTGAGGCAGCGCATTGTTTTGCATCCTTTTGGCGTGATATCCATATGAAAT  
TCATGGCTTTTTCTTTTTTGCATATTAAAGATAAGACTTCCTCTACCACCACACCAAATGACTACTACACACTG  
CTCATTGAGAAGTGTGAGCTGAGTGGGGCAGGCTTGAGTTTTTCATTTTATATCTATATGCTATAAGTATAT  
AAATACTATAGTTATATAGATAAAGAGATACGAATTTCTATAGACTGACTTTTTCCATTTTTTAAATGTTTCATGT  
CACATCCTAATAGAAAGAAATTACTTCTAGTCAGTCATCCAGGCTTACCTGCTTGGTCTAGAATGGATTTTTCCC  
GGAGCCGGAAGCCAGGAGGAACTACACCACACTAAACATTGTCTACAGCTCCAGATGTTTCTCATTTTTAAACA  
ACTTTCCACTGACAACGAAAGTAAAGTAAAGTATTGGATTTTTTTAAAGGGAACATGTGAATGAATACACAGGAC  
TTATTATATCAGAGTGAGTAATCGGTTGGTTGGTTGATTGATTGATTGATTGATACATTACAGCTTCCTGCTGCTA  
GCAATGCCACGATTTAGATTTAATGATGCTTCAGTGGAATCAATCAGAAGGTATTCTGACCTTGTGAACATCAG  
AAGGTATTTTTTAACTCCCAAGCAGTAGCAGGACGATGATAGGGCTGGAGGGCTATGGATTCCCAGCCCATCCCT  
GTGAAGGAGTAGGCCACTCTTTAAGTGAAGGATTGGATGATTGTTTATAATACATAAAGTTCTCTGTAATTACAA  
CTAAATTATTATGCCCTCTTCTCACAGTCAAAAGGAAGTGGTGGTTTTGGTTTTTGTGCTTTTTTAGATTTATT  
GTCCCATGTGGGATGAGTTTTTAAATGCCACAAGACATAATTTAAATAAATAAACTTTGGGAAAAGGTGTAAGA  
CAGTAGCCCCATCACATTTGTGATACTGACAGGTATCAACCCAGAAGCCCATGAACTGTGTTTCCATCCTTTGCA  
TTTCTCTGCGAGTAGTTCCACACAGGTTTGTAAAGTAAGTAAGAAAGAAGGCAAATTGATTCAAATGTTACAAAAA  
AACCCTTCTTGGTGGATTAGACAGGTTAAATATATAAACAAACAAACAAAAATTGCTCAAAAAAGAGGAGAAAAG  
CTCAAGAGGAAAAGCTAAGGACTGGTAGGAAAAAGCTTTACTCTTTTCATGCCATTTTATTCTTTTTGATTTTTA  
AATCATTTCATTCAATAGATACCACCGTGTGACCTATAATTTTGCAAATCTGTTACCTCTGACATCAAGTGTAATT  
AGCTTTTGGAGAGTGGGCTGACATCAAGTGTAAATTAGCTTTTGGAGAGTGGGTTTTGTCCATTATTAATAATTAA  
TTAATTAACATCAAAACAGGCTTCTCATGCTATTTCTACCTCACTTTGGTTTTGGGGTGTTCCTGATAATTGTGC  
ACACCTGAGTTTCACAGCTTCACCACTGTCCATTGCGTTATTTTCTTTTTCTTTTATAATTCTTTCTTTTTCTT  
CATAATTTTCAAAGAAAACCCAAAGCTCTAAGGTAACAAATTACCAAATTACATGAAGATTGGTTTTTGTCTT  
GCATTTTTTTCTTTTATGTGACGCTGGACCTTTCTTTACCCAAGGATTTTTAAACTCAGATTTAAACAAGGG  
GTTACTTTACATCCTACTAAGAAGTTTAAGTAAGTAAGTTTCATTCTAAAATCAGAGGTAAATAGAGTGCATAAA  
TAATTTTGTTTTAAATCTTTTTGTTTTCTTTTAGACACATTAGCTCTGGAGTGAGTCTGTCTATAATTTGAACA  
AAAATTGAGAGCTTTATTGCTGCATTTAAGCATAATTAATTTGGACATTATTTTCGTGTTGTGTTCTTTATAACC  
ACCGAGTATTAACTGTAAATCATAATGTAAGTGAAGCATAAACATCACATGGCATGTTTTGTCAATTGTTTTAG  
GTACTGAGTTCTTACTTGAGTATCATAATATATTGTGTTTTAACCAACACTGTAAACATTTACGAATTATTTTT  
TTAACTTCAGTTTTACTGCATTTTCACAACATATCAGACTTCACCAAATATATGCCTTACTATTGTATTATAGT  
ACTGCTTTACTGTGTATCTCAATAAAGCACGCAGTTATGTTAC

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FIGURE 312A

MLWWEEDCYEREDVQKKTFTKWVNAQFSKFGKQH IENLFS DLQDGRRLDLLEGLTGQKLPKEKGSTRVHALN  
NVNKALRVLQNNNVDLVNIGSTDIVDGNHKLTLGLIWNII LHWQVKNVMKNIMAGLQQTNSEKILLSWVRQSTRN  
YPQVNVINFTTSWSDGLALNALIHSHRPDLFDWNSVVCQQSATQRLEHAFNIARYQLGIEKLLOPEDVDTTYPDK  
KSILMYITS L FQVLPQQVSIEAIQEVEMLPRPPKVTKEEHFQLHHQMHYSQQITVSLAQGYERTSSPKPRFKSYA  
YTQAAYVTTS DPTRSPFPSQHLEAPEDKSFSSLMSEVNLDRYQTAL EEVLSWLLSAEDTLQAQGEISNDVEVV  
KDQFH THEGYMMDLTAHQGRVGNILQLGSKLIGTGKLS EDEETEVEQEQMNLNLSRWEC LRVASMEKQSNLHRVLM  
DLQNQKLKELNDWLTKTEERTRKMEEELGPDLEDLKRQVQ QHKVLQEDLEQE QVRVNSLTHMVVVVDESSGDHA  
TAAL EELKVLGDRWANICRWTE DRWVLLQDILLKWQRLTEEQCLFSAWLSEKEDAVNKIHTTGFKDQNEMLSSL  
QKLAVLKADLEKKQSMGKLYSLKQDLLSTLKNKSVTQKTEAWLDNFARCDNLVQKLEKSTAQISQAVTTTQPS  
LTQTTVMETVTTVT TREQILVKHAQEELPPPPQKQRQITVDSEIRKRLDVDITELHSWITRSEAVLQSPEFAIF  
RKEGNFSDLKEKVNAIEREKA EKFRKLQDASRSAQALVEQMVNEGVNADSIKQASEQLNSRWIEFCQLLSERLNLW  
LEYQNNIIAFYNQLQQLEQMTTAE NWLKIQTTPSEPTAIKSQLKICKDEVNRLSGLQPQIERLKIQSIALKEK  
GGGPMFLDADFVAFTNHFKQVFS DVQAREKELQTI FDTLPPMRYQETMSAIRTWVQQSETKLSIPQLSVTDYEIM  
EQRLGELQALQSSLQEQQSGLYYLSTTVKEMSKKAPSEISRKYQSEFEEIEGRWKKLSSQLVEHCQKLEEQMNKL  
RKIQNHIIQTLKKWMAEVDVFLKEEWPALGDSEILKKQLKQCRLLVSDIQTIQPSLNSVNEGGQKIKNEAEPEFAS  
RLETTELKELNTQWDHMCQQVYARKEALKGGLEKTVSLQKDLSEMH EWMTQAE EYLERDFEYKTPDELQKAVEEM  
KRAKEEAQQKEAKVKLLTESVNSVIAQAPPVAQEALKELETLTNYQWLCTRLNGKCKTLEEVWACWHELLSYL  
EKANKWLNEVEFKLT TENIPGAAEISEVLDLENLMRHS EDNPNQIRILAQTLTDGGVMDELINEELETFN SR  
WRELHEEA VRRQKLLEQS IQSAQETESLHLIQESLTFIDKQLAAYIADKVDAAQMPQEAQKIQSDLT SHEISLE  
EMKKHNQKGEEAQRVLSQIDVAQKKLQDVSMKFR LFKPANFEQRLQESKMILDEVKMHLPAL ETKSVEQEVVQS  
QLNHCVNLYKSLSEVKSEVEMVIKTGRQIVQKKQ TENPKELDERVTALKLHYNELGAKVTERKQQLEKCLKLSRK  
MRKEMNVLTEWLAATDMELTKRS AVEGMP SNLDSEVAWGKATQKEIEKQKVHLKSITEVGEALKT VLGKKETLVE  
DKLSLLNSNWI AVTSRAE EWLNLLEYQKHMETF DQNVDHITKWI IQADTL LDESEKKKPPQKEDVLKRLKAELN  
DIRPKVDSTRDQAANLMANRGDHC RKLVEPQISELNHRFAAISHRIKTGKASIP LKELEQFNSDIQK LLEPLEAE  
IQQGVNLKEEDFNKDMNEDNEGTVKELLQRGDNLQQRITDERKREEIKIKQQLLQTKHNALKD LRSQRRKKALEI  
SHQWYQYKRQADDLLKCLDDIEKKLASLPEPRDERKIKEIDRELQKKKEELNAVRRQAEGLSEDGAAMAVEPTQI  
QLSKRWREIESKFAQFRRLNFAQIHTVREETMMVMTE DMPL EISYVPSTYLTEITHVSQALLEVEQLLNAPDLCA  
KDFEDLFKQEE SLKNIKDSLQQSSGRIDIH SKKTAALQSATPVERVKLQEALSQLDFQWEKVNMKYKDRQGRFD  
RSVEKWRRFHYDIKIFNQWLTEAEQFLRK TQIPENWEHAKYKWLKELQDGIGQRQTVVRTLNATGEEIIQQSSK  
TDASILQEKLGSLNLRWQEVCKQLSDRKKRLEE QKNILSEFQRD LNEFVLWLEEADNIASIPLEPGKEQQLKEKL  
EQVKLLVEELPLRQGI LKQLNETGGPVLVSAPISPEEQDKLENK LKQTNLQWIKVSRALPEKQGEIEAQIKDLGQ  
LEKKLEDLEEQLNHL LLLWLSPIRNQLEIYNQPNQEGPFDVQET EIAVQAKQPDVEEILSKGQHLYKEKPATQPVK  
RKLEDLSSEWKAVNRLLQELRAKQPD LAPGLTTIGASPTQT VTLVTQPVVTKETAISKLEMPSSLMLEVPALADF  
NRAWTELTDWLSLLDQVIKSQRVMVG DLEDINEMI KQKATMQDLEQRRPQLEELITAAQNLKNKTSNQEARTII  
TDRIERIQNQWDEVQEHLQNR RQQLNEMLKDSTQWLEAK EAEQVLGQARAKLESWKEGPYTVDAIQKKITETKQ  
LAKDLRQWQTNVDVANDLALKLLRDYSADDTRK VHMITENINASWRSIHKRVS EREAAL EETHRLLQQFPDL EK  
FLAWLTEAETTANVLQDATRKERLLED SKGVKELMKQWQDLQGEIEAHTDVYHNLDENSQKILRSLEGSDDAVLL  
QRRLDNMNFKWSEL RKKSLNIRSHLEASSDQWKRLHLSLQELLVWLQLKDD ELSRQAPIGGDFPAVQKQNDVHRA  
FKRELKTKEPVIMSTLETVRIFLTEQPLEGLEKLYQEPREL PPEERAQNVTRLRKQAE EVNTEWEKLN LHSADW  
QRKIDETLERLQELQEATDELDLKL RQAEVIKGSWQPVGDLLIDSLQDHLEKVKALRGEIAPLKENVSHVNDLAR  
QLTTLGIQLSPYNLSTLEDLNRWKL LQVAVEDRVRQLHEAHRDFGPASQHF LSTSVQGPWERAISP NKVPYYIN  
HETQTTCDWHPKMT ELYQSLADLNNVRFSA YRTAMKLRR LQKALCLD LLSLSAACDALDQHNLKQNDQPM DI LQI  
INCLTTIYDRLEQEHNNLVN VPLCVD MCLNWL LNVYDTGRTGRIRVLSFKTGIISLCKAHLEDKYRYL FKQVASS  
TGFC DQRR LGLLLHDSIQIPRQLGEVASFGGSNIEPSVRSCFQFANNKPEIEAALFLDWMRL EPQSMVWLPVLHR  
VAAAETAKHQA KCNICECPIIGFRYRSLKHFN YDICQSCFFSGRVAKGHKMHYPMVEYCTPTTSGEDVRDFAKV  
LKNKFRTKRYFAKHPRMGYLPVQTVLEGDNMETPVTLINFWPVD SAPASSPQLSHDDTHSRIEHYASRLAEMENS  
NGSYLND SISPNESIDDEHLLIQHYCQSLNQDSPLSQPRSPAQILISLESEERGE LERILADLEENRN LQAEYD  
RLKQQHEHKGLSPLSPPEMMPTSPQSPRDAELIAEAKLLRQHKGRL EARMQI LEDHNKQLESQ LHRLRQLLEQP

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**FIGURE 312B**

QAEAKVNGTTVSSPSTSLQRSDSSQPMLLRVVGSTSDSMGEEDLLSPQDTSTGLEEVMEQLNNSFPSSRGRNT  
PGKPMREDTM

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**FIGURE 313**

CTCGTCATGCGCAATGTGGCGCTGCGGCGGGCGGCAGGGCCTGTGTGTGCTGAGGCGGCTGAGCGGCGGACATGC  
ACACCACAGAGCGTGCGGATGGAACAGTAACCGGGCTTGTGAGAGGGCTCTGCAGTATAAACTAGGAGACAAGAT  
CCATGGATTACCGTAAACCAGGTGACATCTGTTCCCGAGCTGTTTCTGACTGCAGTGAAGCTCACCCATGATGA  
CACAGGAGCCAGGTATTTACACCTGGCCAGAGAAGACACGAATAATCTGTTTACAGCTGCAGTTCCGTACCCTCC  
CATGGACAGTACTGGTGTTCCTCACATTCTTGAGCATACCGTCTCTTTGTGGGTCTCAAAAAATATCCGTGCAGAAA  
CCCTTTCTTCAAAATGTTGAACCGGTCCCTCTCCACGTTTATGAACGCCTTCACAGCTAGTGATTATACTCTGTA  
TCCATTTTCCACACAAAATCCCAAGGACTTTCAGAATCTCCTCTCGGTGTATTTGGATGCCACCTTTTCCCCATG  
TTTACGCGAGCTGGATTTCTGGCAGGAAGGATGGCGGCTGGAACATGAGAATCCGAGCGACCCCCAGACGCCCTT  
GGTCTTTAAAGGAGTCGTCTTTAATGAGATGAAGGGAGCGTTTACAGACAATGAGAGGATATTCTCCAGCACCT  
TCAGAACAGACTTCTTCCCGACCACACGTACTCAGTGGTCTCCGGGGGTGACCCACTGTGCATCCCGGAGCTTAC  
ATGGGAGCAGCTTAAGCAGTTTCATGCCACTCACTATCACCCAAGCAATGCTAGGTTCTTCACGTACGGTAATTT  
TCCATTAGAACAGCATCTGAAACAAATTCACGAGGAAGCACTGAGCAAATTCAGAAAATGAACCAAGCACCGT  
GGTGCCAGCTCAGACACCCCTGGGACAAGCCTAGGGAATTCCAGATAACATGTGGCCCGGATTCAATTGCTACAGA  
TCCCTCTAAACAAACAACCGTCAGCGTTAGCTTCTTACC GGACATCACCGACACATTGAAGCCTTCACATT  
AAGTCTTCTGTCTTCACTCTTGACTTCTGGGCCAAATTCTCCCTTTTACAAAGCCTTGATTGAATCTGGCCTTGG  
CACAGAATTTTCTCTGATGTTGGATATAATGGCTACACGAGGGAGGCCTACTTTAGTGTCGGCCTCCAAGGGAT  
TGTGGAGAAAGACATTGAGACCGTCAGAAGCCTCATAGACAGAACGATTGATGAAGTAGTTGAGACAAGGATTGA  
AGATGATCGAATTGAGGCTTTACTTCATAAAATTGAAATACAGATGAAACATCAGTCTACCAGCTTTGGGCTGAT  
GCTGACATCATACATAGCTTCTTGCTGGAACCATGATGGGGACCCTGTGGAGCTCTTGAAGTTGGGAAATCAGTT  
AGCTAAATTCAGACAGTGCCTGCAGGAAAATCCAAAATTTTGAAGAAAAAGTAAACAGTATTTTAAGAATAA  
CCAGCATAAGCTGACTTTATCGATGAGGCCAGATGACAAGTATCACGAGAAGCAGGCACAGGTGGAAGCCACGAA  
GCTCAAGCAGAAGGTCGAGGCTCTGTCCCCCGGAGACAGGCAGCAGATCTACGAGAAAGGTCTAGAATTACGGAG  
TCAACAAAGCAAACCTCAAGATGCCTCTTGCTGTCAGCGTTGAAAGTTTCCGATATTGAACCCACCATACTGT  
CACAGAGTTGGACGTGGTCTTGACAGCTGGAGATATCCCTGTTTCACTACTGCGCCAGCCACCAATGGCATGGT  
GTATTTCCGGGCCTTCTCCAGCCTGAACACACTCCCCGAGGAGCTGAGGCCCTATGTGCCCCCTCTTCTGCAGCAT  
CCTCACCAAGCTGGGCTGCGGCCTTCTTGACTACCGGGAGCAGGCTCAGCAGATAGAATTGAAGACCGGAGGGAT  
GAGTGCTTCTCCCCACGTGCTCCCCGACGACTCACACATGGACACCTACGAGCAGGTAGGTGTGCTTTTCTCCTC  
TCTCTGCCTGGATCGAAACCTGCCAGACATGATGCAGCTATGGAGTGAAATATTTAACAACCCGTGCTTTGAAGA  
AGAGGAGCACTTCAAGGTGCTGGTGAAGATGACCGCCAGGAGCTCGCCAATGGAATTCCTGACTCTGGGCACCT  
GTACGCATCCATCAGGGCAGGCCGACCCCTCACGCCCGCAGGGGACCTGCAGGAGACCTTCAGCGGGATGGATCA  
GGTGCGGCTGATGAAGAGGATTGCAGAAATGACAGATATCAAACCCATCCTGAGGAAGCTCCCGCGTATCAAGAA  
ACACTTGTTAAATGGTGATAATATGAGGTGTTTCACTGAAATGCGACTCCTCAGCAGATGCCTCAGACAGAAAAAGC  
GGTCGAAGACTTCTTTAGAAGCATCGGTGCGAGTAAAAAGGAACGGAGGCCTGTGCGCCACACACGGTCGAGAA  
ACCTGTGCCCAGCAGCTCTGGTGGAGATGCCACGTTCCCCATGGCTCCAGGTCATTAGGAAGCTGGTCATGGA  
ACCCACCTTCAAGCCCTGGCAGATGAAGACTCACTTCCTGATGCCCTTCCCGGTGAATTACGTGGGTGAATGCAT  
CCGAACCTGTCCCTACACGGACCCAGATCATGCCAGTCTTAAATCCTTGACGTTTGATGACTGCCAAATCTT  
GCATACAGAAATTCGAGAAAAAGGCGGTGCTTATGGTGGAXGCGCAAACTCAGCCACAATGGGATTTTACCCT  
TTACTCTTACAGGGACCCAAATACAATAGAGACGCTCCAGTCTTTTGGGAAGGCTGTGACTGGGCTAAGTCTGG  
AAAATTCACACAGCAAGACATCGACGAAGCCAAATTTCTGTCTTCTCAACCGTAGATGCTCCTGTGCTCCTTC  
AGACAAAGGAATGGACCACTTCTTGACGGCCTCTCGGATGAGATGAAGCAGGCCCACAGAGAGCAGCTCTTTGC  
TGTACGCCACGACAAGCTCCTGGCCGTGAGCGATAGGTACCTCGGCACTGGGAAGAGCACACACGGCCTGGCCAT  
CCTCGGACCCGAGAACCCGAAAATTGCCAAGGACCCATCCTGGATCATCCGATGAGCAGCCGTGGCGCTCGACTG  
CACAGGAGCCCAGACAATAACCTCCAAGCTGAAATGAAAAGTCAGAAATGCTACTGCTTTTTTCCAAGAATAT  
TATGTCATTGAGTGTGCGCAAAGCCCTTGACTGGCGAGTCAAAAACCTCAGATCTATCTTAAGAGTGACCAGGAAG  
AGGTTTATTGAATAATCATGCATGAAGCGCCAAAAGATGCACCATGTAGAATTTTCACTTTGTACTGGCAGGCTC  
GTTTTACCTGATTCTAGAATATTTAAGAATCTAAAAATAAAGGGCAACTCTGACTTA



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**FIGURE 314**

MWRCGGRQGLCVLRRRLSGGHAHHRAWRWNSNRACERALQYKLGDKIHGFTVNQVTSVPELFLTAVKLTHDDTGAR  
YLHLAREDNTNNLFSVQFRITPMDSTGVPHILEHTVLCGSQKYPGRNPFCKMLNRSLSFTMNAFTASDYTLYPFST  
QNPCKDFQNL LSVYLDATFSPCLRELDWFQEGWRLEHENPSDPQTPLVFKGVVFNEMKGAFDNERIFSQHLQNRL  
LPDHTYSVVSGGDPLCIPELTWEQLKQFHATHYHP SNARFFTYGNFPLEQHLKQIHEEALSKEFKIEPSTVVP AQ  
TPWDKPREFQITCGPDSFATDPSKQTTVSVSFLLPDITDTFEAFTLSLLSSLLTSGPNSPFYKALIESGLGTEFS  
PDVGYNGYTREAYFSVGLQGIVEKDIETVRSLIDRTIDEVVETRIEDDRIEALLHKIEIQMKHQSTSFGLMLTSY  
IASCWNHDGDPVELLKLGNQLAKFRQCLQENPKFLQEKVKQYFKNNQHKLTLSMRPDDKYHEKQAQVEATKLKQK  
VEALSPGDRQQIYEKGLELRSQQSKPQDASCLPALKVSDIEPTIPVTELDVVLTAGDIPVQYCAQPTNGMVYFRA  
FSSLNTLPEELRPYVPLFCSILTKLGCGLLDYREQAQQIELKTGGMSASPHVLPDDSHMDTYEQVGVLFSSLC LD  
RNL PDMMQLWSEIFNNPCFEEEEHFKVLVKMTAQELANGIPDSGHLYASIRAGRTLTPAGDLQETFSGMDQVRLM  
KRIAEMTDIKPILRKLPRIKKHLLNGDNMRCSVNATPQQMPQTEKAVEDFLRSIGRSKKERRPVRPHTVEKPVPS  
SSGGDAHVP HGSQVIRKLVMEPTFKPWQMKTHFLMPFPVNYVGECIRTVPYTDPDHASLKILARLMTAKFLHTEI  
REKGGAYGGXAKLSHNGIFTLYSYRDPNTIETLQSFGKAVDWAKSGKFTQQDIDEAKLSVFS TVDAPVAPSDKGM  
DHFLYGLSDEMKAHREQLFAVSHDKLLAVSDRYLGTGKSTHGLAILGPENPKIAKDPSWIIR

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**FIGURE 315A**

ATAGTCACCAGAAGCTGGAAGAGTCAAAGGACACATTCTCCCCTCAAGCCCCAGTGGGAGCACGGCCCAGCTGGA  
TTTTGGACTTCTGGCCTCCAGAACTAGACAGGGCCTCACGGTGTACCCAGGGTGGAAATACAGTGGTGTGATCAT  
AGCTCACTGCAGCCTGGAATTCCTGGGCTCAAGCAACCCTGCCACCTCAGCCTTCCAAGTAGCTAGGACTACAGA  
ACATCCATGATAGCAGTCTTCTGTAAATCGAACTTTCAAGAATTCTCTGAAGGAACCAAGTAGGATATTCTTAC  
ATCATGACTTAATGTGAATGCAAGAACAAGAAATAGGTTTTATCTCTAAATATAATGAAGGGCTGTGTGTAAACA  
CTGACCTGTCTCAATTCTAACAAGCATTCTTAGACATGAGTTTACATCGGCATAATGGGTTTCTGATCGAGATCTTC  
AGTCCTCTGCTTCATCTGTGAGCTTGCCTTCAGTCAAAAAGGCACCCAAAAAAGAAGAAATTTCAATAGGCTCCC  
TGTTTCGGAGGAAAAAGATAACAAACGTAAATCAAGGGAGCTAAATGGCGGGGTGGATGGAATTGCAAGTATTG  
AAAGTATACATTCTGAAATGTGTACTGATAAGAACTCCATTTTCTCTACAAATACCTCTTCTGACAATGGATTAA  
CTTCCATCAGCAAAACAAATTGGAGACTTCATAGAGTGCCTTTTGTGCCCTTTTGCAGGATTCTAAAGACAGATTTT  
CTGATATAATGACTTGTCTACAGATCTTGTGTGGATTGCTTACGACAATATTTAAGGATAGAAATCTCTGAAA  
GCAGAGTTAATATTAGTTGCCAGAAATGTACTGAGCGGTTTAAATCCCCATGATATTCGCTTGATATTAAGTGATG  
ATGTCTTGATGGAAAAATACGAAGAATTTATGCTTAGACGGTGGCTTGTTCAGATCCTGATTGTAGGTGGTGTCT  
CAGCTCCAGACTGTGGATATGCTGTGATAGCATTGGATGTGCCAGCTGTCCAAAATTAACCTGTGGGCGAGAGG  
GCTGTGGAACAGAGTTTTGCTACCACTGTAAACAGATTTGGCACCCCAACCAGACCTGTGATGCTGCTCGACAAG  
AGAGAGCCCAGAGCTTACGTTTGAGAAGTATACGTTCTTCATCCATTAGTTATAGTCAAGAGTCTGGAGCAGCAG  
CTGATGATATAAAGCCATGTCCACGATGTGCTGCTTATATAATAAAGATGAATGATGGGAGCTGCAATCACATGA  
CATGTGCTGTTTGTGGTTGTGAGTTTTGTGGTTGTGATGAAAGAAATCTCAGATTTGCATTATCTAAGTCCAT  
CAGGATGTACTTTTTGGGGGAAGAAACCCTGGAGCCGAAAGAAGAAATATTGTGGCAACTGGGAACACTGGTTG  
GTGCTCCTGTGCGAATCGCTTTAATAGCTGGCATTGCTATTCTGCAATGATTATTGGCATTCTGTGTATGTGG  
GCCGCAAGATTCACAATCGCTATGAAGGCAAGGATGTTTCAAAGCACAAACGGAATTTGGCCATAGCAGGTGGTG  
TAACGTTGTCTGTAATCGTGTCTCCAGTAGTAGCTGCAGTGACTGTAGGTATCGGTGTTCTTATTATGTTAGCTT  
ATGTCTATGGCGTAGTTCCAATTTCTCTTTGTGCAAGCGGAGGTTGTGGAGTCTCAGCAGGCAATGGAAAAGGAG  
TTAGGATTGAATTTGATGATGAAAATGATATAAATGTTGGTGGAACCTAACACAGCTGTAGACACAACATCAGTAG  
CAGAAGCAAGACACAACCCAGCATAGGGGAGGGAAGTGTGGTGGGCTGACTGGCAGTTTGAGTGCAAGTGGAA  
GCCACATGGATCGAATAGGAGCCATCCGAGACAACCTGAGTGAAACGGCCAGCACCATGGCACTAGCTGGAGCCA  
GTATAACGGGGAGTCTGTGAGGAAGTGCCATGGTAACTGTTTAAACAGGTTGGAAGTACAAGCAGATGTACAGA  
AAGAACGGTACAGTCTAAGTGGAGAATCTGGCACAGTCAGCTTGGGAACAGTTAGTGATAATGCCAGCACCAAAG  
CAATGGCAGGATCCATTCTGAATTCCTACATCCCATTTGGACAAAGAAGGCAACAGTATGGAGGTGCAAGTAGATA  
TTGAGTCAAAGCCATCCAAATTCAGGCACAACAGTGGAAGCAGTAGTGTGGATGATGGCAGTGCCACCCGAAGTT  
ATGCTGGCGGTTTATCCAGTGGCTTGCCTGAAGGTAAATCTAGTGCCACCAAGTGGTCCAAAGAAGCAACAGCAG  
GGAAAAAATCAAAAAGTGGTAAACTGAGGAAAAAGGGTAACATGAAGATAAATGAGACGAGAGAGGACATGGATG  
CACAGTTGTTAGAACAACAAAGCACGAACCTCAAGTGAATTTGAGGCTCCATCCCTCAGTGACAGTATGCCTTCTG  
TAGCAGATTCTCACTCTAGTCATTTTTCTGAATTTAGTTGTTCTGACCTAGAAAGCATGAAAACCTCTTGATGTC  
ATGGTTCCAGTGATTATCACACCCGCTTTGCTACTGTTAACATTCTTCTGAGGTAGAAAATGACCGTCTGGAAA  
ATCCCCACATCAGTGTAGCATTCTGTGGTTACCCAAACTGCTTCTGTTTCTGAGAGTTTCACAGTTGAATCATA  
TTGCTGAAGAACATGGTAACAATGGAATAAAACCTAATGTTGATTTATATTTTGGCGATGCACTAAAAGAAACAA  
ATAACAACCACTCACATCAGACAATGGAATTAAGTTGCAATTCAGACTGAAATTTAGGCCCCATAAATGCTGCA  
GAATAATTACCACTGTACAACCGTGTGTTGGAGCTGGTTGAACTACATGTGACTACTTAAGTTTACAGTTTACCAGC  
AAAAGCCGGGTTTCATTATCATAATGCAGATACATTTTCTGTGTTTCTGCAAGGCATTGTGTGTCTGTGGATCTT  
AGTTACCAAACATGAAGTGAAGGCTTTAAAAGTGCATTATTTTAAAGGATAATAAATTTGAAGAGCAAAGCATGT  
TTTGTGTGTTTGGCACAAAACATTGCTTGAAGCACATACTTAGATAGAAATTTGGTCTTAATTTATATAATCAATA  
TAAAATACTAATGCAATTTCTACAGCATTCAAATGAAGAAACTTGAGGCTTTAGGGATAAGTGGTTAGTGATATT  
TTATTGAACCCTAAAGAGATAAGTTTAAAAGAACTGCATAGGTTACTCTCAGTATATGATACTCTGTAAACATT  
TCTATTTATATCGGCATAAATTTCAATTTTTTCTTTCATATGCAATGTGGTTATATAAAGCTTAATGCAGCTCAT  
TTGCTACCATTTGGATACTTAGACACTTTGAGCAAGATTGTGGCAGTTTTTGCACAACCTTTGAAATAGAAATACC  
TGGTACTCTATCTTGTATTGTTGATGCCATCTTAGAGGAAAAATGTAAAGGTAAGTAATTAAGCATATGACA  
GCAACAAATAAGATACATAAAACTACAAAATAAAGTCCCATTAGGTTATAAGTATTACAAAAATCCACCTTTCT

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**FIGURE 315B**

CTAAGGGGAAGTTTGTACCCCATTTGATTCTTGGTGCCTTTGGGATCGACTGGGTTTTAATGGCCTAGTTATTTGA  
GGATTTTGCTGTGTTGTTTTCCATGTCCTTCTCTGGTCACCTTGGATTATATATAAAAATACAGGAAATAGATAAA  
CATGAATGTGATTAATAATGCTGAAAAAGTATTAGCCTACCAAAGACACACTCAGGCTTTAGTGAATAACTTTAC  
ATAACCTCAGTTTTTAACACATGCATATCTTCTCCAACCATGAAATCAAAGCACGGTGCAGAACTTGTACCAAGT  
AÇAAAAGGTCCATGTATGATTAGCATTATTTTCTTTTGCTTTTGTTTATGGACAATGTTTCAGCTGACATAAGCAG  
AAGTTGGCCAAAATACTGCCTGTACTGTTAATTTCTGTATAATTCACTTAAATAAAAGCAGGTAAACCTCAATG  
ATAGCAGTTAAAATGTTCTATCTTATGTATTTCTTTAAGTATTACCATTATGGTGCTACTGAGCGTTTTCTTTT  
GGTAAAAAGAAAAATGCCATGGGCTGCAGTCTTCTTCCATCACTTTTCCCTACCAGGTCCATTAATATGCTTATA  
ACACTAGTGCCAGTTATTTTATTTGATAATGCTTATGGTATTTGTATATTTGTTTGCATTCCAATTTGTTTAAT  
AATGAGTGTGTAAACTGCATACGTTAAATAAATGTAAATACTAATGTACTGCTGCAAAAAAAAAAAAAAAAAAAAA  
AAAAAAA

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**FIGURE 316**

MQEQEIGFISKYNEGLCVNTDPVSILTSILDMSLHRQMGSDDRDLQSSASSVSLPSVKKAPKKRRISIGSLFRRKK  
DNKRKSRELNGGVVDGIASIESIHSEMCTDKNSIFSTNTSSDNGLTSSISKQIGDFIECPLCLRHSKDRFPDIMTC  
HHRSCVDCLRQYLRIEISESRVNISCPECTERFNPHDIRLILSDDVLMKEYEEFMLRRWLADPDCRWCPAPDCG  
YAVIAFGCASC PKLTGREGCGTEFCYHCKQIWHPNQTCDAARQERAQSLRLRTIRSSSSISYSQESGAAADDIKP  
CPRCAAYIIKMNDGSCNHMTCAVCGCEFCWLCMKEISDLHYLSPSGCTFWGKKPWSRKKKILWQLGTLVGAPVGI  
ALIAGIAIPAMIIGIPVYVGRKIHNRYESGKDVSKHKRNLAAGGVTL SVIVSPVVAAVTVGIGVPIMLAYVYGVV  
PISLCRSGGCGVSAGNGKGVRIEFDDENDINVGGTNTAVDTTSVAEARHNPSIGEGSVGGLTGSLASGSHMDRI  
GAIRDNLSETASTMALAGASITGSLSGSAMVNCFNRLVQADVQKERYSLSGESGTVSLGTVSDNASTKAMAGSI  
LNSYIPLDKEGNSMEVQVDIESKPSKFRHNSGSSSVDDGSATRSYAGGSSSGLPEGKSSATKWSKEATAGKKS  
GKL RKKGNMKINETREDMDAQLLEQQSTNSSEFEAPSLSDSMPSVADSHSHFSEFSCSDLESMTSCSHGSSDY  
HTRFATVNILPEVENDRLENSPHQCSISVVTQTASCSEVSQNLNHIAEEHGNGGIKPNVDLYFGDALKETNNNHSH  
QTMELKVAIQTEI

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**FIGURE 317**

GGCTCTGGGCATCACCAGCGGCCCCAGGGAAAAAGAAAGAAATGCGGAAACAGCATGAAATCCACCCTGCGCCTG  
CCGAGAGGGCCCCTGCCAACCCGGAGGGACTGGATAGCGACTTTCCTTGCCGTGCTAAGTGACTACCCGTCTCCTG  
ACATCAGCCCCCGATATTCCGCCGAGGGGAGAAACTGCGTGTGATTTCTGATGAAGGGGGCTGGTGGAAAGCTA  
TTTCTCTTAGCACTGGTCGAGAGAGTTACATCCCTGGAATATGTGTGGCCAGAGTTTACCATGGCTGGCTGTTTG  
AGGGCCTGGGCAGAGACAAGGCCGAGGAGCTGCTGCAGCTGCCAGACACAAAGGTGCGCTCCTTCATGATCAGAG  
AGAGTGAGACCAAGAAAGGGTTTTACTCACTGTCTGGTGAGACACAGGCAGGTAAAGCATTACCGCATTTCCTGTC  
TGCCGAACAACCTGGTACTACATTTCCCCGAGGCTCACCTTCCAGTGCCTGGAGGACCTGGTGAACCACTATTCTG  
AGGTGGCTGATGGCCTGTGCTGTGTGCTCACCACGCCCTGCCTGACACAAAGCACGGCTGCCCCAGCAGTGAGGG  
CCTCCAGCTCACCTGTACCTTTCGCTCAGAAGACTGTGGACTGGAGGAGAGTGTCCAGACTGCAGGAGGACCCCCG  
AGGGAACAGAGAACCCGCTTGGGGTAGACGAGTCCCTTTTCAGCTATGGCCTTCGAGAGAGCATTGCCTCTTACC  
TGTCCTTGACCAGTGAGGACAACACCTCCTTTGATCGAAAGAAGAAAAGCATCTCCCTGATGTATGGTGGCAGCA  
AGAGAAAGAGCTCATTCTTCTCATCACCACCTTACTTTGAGGACTAGCCAAGAACAGACACAATGGTTTCATGCCC  
AAAAGGAACAGAAGTTCCAACATTGCCTGGGATCTTGCGAAAAGCGAGGTTCCTTGATCCCTGGGAGCCTCACG  
TATTTTAGAAGCCAAGAGAAGCCACATGGAGACTCAAATTCGCATCTTCTCTATCCACATCATGACCAAAGGAAC  
CCCTCCCTGGTGTCTGATCAGGGCTGTGGCATCACAAAACATTGGATCATGACATGTCTGGGCGATGCTTGGAAAA  
GCCCAGCATGTATGTATGCACACATTGTGTGTGTGGGAAGGACAAAGCCACTCTCACAAGAAAGGGCACCAGGAC  
TGCTCTCCAAGGAACCTGGACCTGTCCAGACAGTTTAACTCCAAGGTCATTGGAGAGAACTTCTGTATGGGCAAGC  
CTGAGAGGGAGAGGAAACAAAAGCTGTGTCTTGGCAGAAAGGTCCTGGGTTTGCAGATGGGTGCCCTGAATGGAAC  
ACTTTAACTAATCCATAGGGACTTCTGGTATGCTTTCCTCTCTTTTTAAAGGAACCTTCGTGACACTAAACATTAG  
CCCAAAGGACTTCTTAGCCTTCAATTGGGAGATACCTTTGGTCTGCTCCTGCACCAAAGCCATATGGGTGGAAGT  
CAGTTGGCCTCCCTGGTTCTGCAGAGGGCCAGAAGAATGAGAGAGAGGAAGACTGCTGGCAGGGAAATCGAGGAG  
GCGAGACTAGAAGTGCACCAGCTTCCCTGATGTCTGCAGCCATGGCTTTCAGCGCAAACAGAACTTCTCTGGGA  
TGCTGGGATTCTTGCCTGTATGAATGCATCAAGTATTCATTTATTGCCCGAATAGGCATTGCATTAAGTCCCTCTG  
TTAGGTGTCAAGCAAGCCAAAAAAGATGCTAAGTCTAACCCCAACAGAAGTGTTACAGTGTAGA  
CGGGAAAAAATGTATAAACAAATGTGTAAAAAGAGAAATCAGCTCATGGCTTAGGATGGAATTAGAGACAGGTGA  
GGGACACTCAGGAGCTCATTTCAGCTGCTCTTCAGAGTGGAAGGGCTGGCTGGATCGGGTAGGTAAGAATAGC  
TGGATTTTTTAGAAAAGAAATGGATACAGTCTAAAGAATTAACCTACCCGGTACTTTATTCTAAGAAGGGTCTGG  
CATCCATATGAGGAAAAATGCTCAGCTCCAGGAAAGATGGGGAGTCCAAGTGGAATTAATGATGTATGCATAATT  
TTAAGAGACAAGGGAGAAAAACACAATGTATAGCCAGAGAAGGAGAAGCTCCCATCCAAATCCTACTAGGAAGAGA  
GTGGGCTGCAGATGAATCTGTGACTCATGTTTCCCTGTTTCAAAGGGATCCTGGGGAAGGAGGGGAACATGCTTG  
CAGTATCTCTCCCTGTCTGTCTGCTCACATAAGCATTCCTGTCATCTAAGCTCATCGTGTCTACTGGTATGTGTAT  
GTGCAGTTACACAGTTTCTGTATCATAAATCCTAGTGTGTTTATACAAGGAGACATCTGTGGTTTCCCCAACCG  
TTCCAAAAGGCTATTTCAAAGGAACCAGCCACGTATGAGAAATGAATGTAACACTGTGGACATTGACTTCCCGC  
ATAAGGCAGGGTGACCCCTGAACTCCAGATGTTTGCACAGTATCTTATGTGTTGTTTTCCGTTGTGACGAATGT  
GATTGGAACATTTGGGGAGCACCCAGAGGGATTTTTTCAGTGGGAAGCATTACACTTTGCTAAATCATGTATTTAT  
TCCTGATTAAACAAACCTAATAAATATTTAACCCTTGGC

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**FIGURE 318**

MGNSMKSTPAPAERPLPNPEGLDSDFLAVLSDYPSPDISPPIFRERGEKLRVISDEGGWWKAISLSTGRESYIPGI  
CVARVYHGWLFEGLGRDKAEELLQLPDTKVGSFMI RESETKKGFYSLSVRHRQVKHYRIFRLPNNWYYISPRLTF  
QCLEDLVNHYSEVADGLCCVLTPCLTQSTAAPAVRASSSPVTLRQKTVDWRRVSRQLQEDPEGTENPLGVDESIF  
SYGLRESIASYLSLTSEDNTSFDRKKKSISLMYGGSKRKSSFFSSPPYFED

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**FIGURE 319A**

CTGCAGGAAGGAGAGAGGAAGAGGAGCAGAAGGGGGCAGCAGCGGACGCCGCTAACGGCCTCCCTCGGCGCTGAC  
AGGCTGGGCCGGCGCCCGGCTCGCTTGGGTGTTTCGCGTCGCCACTTCGGCTTCTCGGCCGGTCGGGCCCTCGGC  
CCGGGCTTGC GGCGCGCTCGGGGCTGAGGGCTGCTGCGGCGCAGGGAGAGGCCTGGTCTCGTGCCGAGGGAT  
GTGAGTGGGAGCTGAGCCACACTGGAGGGCCCCGAGGGCCAGCCTGGAGGTCGTTTACAGAGCCGTGCCGCC  
CGGGGCTTGCAGACCTTGACCCGCCGGTAGGAGCCGCCCTGCGGGCTCGAGGGCGCGCTCTGGTCGCCCGAT  
CTGTGTAGCCGGTTTCAGAAGCAGGCAACAGGAACAAGATGTGAACTGTTTCTTCTGCAGAAAAAGAGGCTCT  
TCCTCCTCCTCCCGCGACGGCAAATGTTCTGAAAAAGACTCTGCATGGGAATGGCCTGCCTTACGATGACAGAAA  
TGGAGGGAACATCCACCTCTTCTATATATCAGAATGGTGATATTTCTGGAAATGCCAATTCTATGAAGCAAATAG  
ATCCAGTTCTTCAGGTGTATCTTTACCATTCCCTTGGGAAATCTGAGGCAGATTATCTGACCTTTCCATCTGGGG  
AGTATGTTGCAGAAGAAATCTGTATTGCTGCTTCTAAAGCTTGTGGTATCACACCTGTGTATCATAATATGTTTG  
CTTTAATGAGTGAAACAGAAAGGATCTGGTATCCACCCAACCATGTCTTCCATATAGATGAGTCAACCAGGCATA  
ATGTACTCTACAGAAATAAGATTTTACTTTCCCTCGTTGGTATTGCAGTGGCAGCAACAGAGCCTATCGGCATGGAA  
TATCTCGAGGTGCTGAAGCTCCTCTTCTTGATGACTTTGTCTATGTCTTACCTCTTTGCTCAGTGGCGGCATGATT  
TTGTGCACGGATGGATAAAAGTACCTGTGACTCATGAAACACAGGAAGAATGTCTTGGGATGGCAGTGTAGATA  
TGATGAGAATAGCCAAAGAAAACGATCAAACCCCACTGGCCATCTATAACTCTATCAGCTACAAGACATTCTTAC  
CAAAATGTATTCGAGCAAAGATCCAAGACTATCATATTTTGACAAGGAAGCGAATAAGGTACAGATTTTCGCAGAT  
TTATTCAGCAATTCAGCCAATGCAAAGCCACTGCCAGAACTTGAACTTAAGTATCTTATAAATCTGGAACTC  
TGCAGTCTGCCTTCTACACAGAGAAATTTGAAGTAAAGAACCTGGAAGTGGTCCCTCAGGTGAGGAGATTTTTG  
CAACCATTATAATAACTGGAAACGGTGAATTCAGTGGTCAAGAGGGAAACATAAAGAAAGTGAGACACTGACAG  
AACAGGATTTACAGTTATATTGCGATTTTCCCTAATATTATTGATGTGAGTATTAAGCAAGCAAACCAAGAGGGTT  
CAAATGAAAGCCGAGTTGTAACATATCCATAAGCAAGATGGTAAAAATCTGGAAATTGAACTTAGCTCATTAAAGG  
AAGCTTTGTCTTTCTGTGTCATTAATTGATGGATATTATAGATTAAGTGCAGATGCACATCATTACCTCTGTAAAG  
AAGTAGCACCTCCAGCCGTGCTTGAAAATATACAAAGCAACTGTCTATGGCCCAATTTTCATGGATTTTGCCATTA  
GTAACTGAAGAAAGCAGGTAATCAGACTGGACTGTATGTACTTCGATGCAGTCCTAAGGACTTTAATAAATATT  
TTTTGACTTTTGTGTCGAGCGAGAAAATGTCATTGAATATAAACACTGTTTGATTACAAAAATGAGAATGAAG  
AGTACAACCTCAGTGGGACAAAGAAGAACTTCAGCAGTCTTAAAGATCTTTTGAATTGTTACCAGATGGAAACTG  
TTCGCTCAGACAATATAATTTTCCAGTTTACTAAATGCTGTCCCCCAAAGCCAAAAGATAAATCAAACCTTCTAG  
TCTTCAGAACGAATGGTGTCTTCTGATGTACCAACCTCACCACATTACAGAGGCCTACTCATATGAACCAATGG  
TGTTTTCACAAAATCAGAAATGAAGATTTGATATTTAATGAAAGCCTTGGCCAAGGCACTTTTACAAAGATTTTAA  
AAGGCGTACGAAGAGAAGTAGGAGACTACGGTCAACTGCATGAAACAGAAGTTCTTTTAAAGTTCTGGATAAAG  
CACACAGAACTATTTCAGAGTCTTCTTTGAAGCAGCAAGTATGATGAGCAAGCTTTCTCACAAGCATTGTTGTTT  
TAAATTATGGAGTATGTGCTGTGGAGACGAGAATATTCTGGTTCAGGAGTTTGTAATAATTTGGATCACTAGATA  
CATATCTGAAAAAGAATAAAAAATGTATAAATATATTATGGAACTTGAAGTTGCTAAACAGTTGGCATGGGCCA  
TGCATTTTCTAGAAGAAAACACCCTTATTCATGGGAATGTATGTGCCAAAAATATTCTGCTTATCAGAGAAGAAG  
ACAGGAAGACAGGAAATCCTCCTTTCATCAAACCTTAGTGATCCTGGCATTAGTATTACAGTTTTTGCCAAAGGACA  
TTCTTCAGGAGAGAATACCATGGGTACCACCTGAATGCATTGAAAATCCTAAAAATTTAAATTTGGCAACAGACA  
AATGGAGTTTGGTACCCTTTGTGGGAAATCTGCAGTGGAGGAGATAAACCTCTAAGTGCTCTGGATTCTCAAA  
GAAAGCTACAATTTTATGAAGATAGGCATCAGCTTCTGCACCAAAGTGGGCAGAATTAGCAAACCTTATAAATA  
ATTGTATGGATTATGAACCAGATTTTCAGGCCTTCTTTCAGAGCCATCATACGAGATCTTAACAGTTTGTCTTACTC  
CAGATTATGAACTATTAACAGAAAATGACATGTTACCAAATATGAGGATAGGTGCCCTAGGGTTTTCTGGTGCCT  
TTGAAGACCGGGATCCTACACAGTTTGAAGAGAGACATTTGAAATTTCTACAGCAACTTGGCAAGGGTAATTTTG  
GGAGTGTGGAGATGTGCCGGTATGACCTCTACAGGACAACACTGGGGAGGTGGTCGCTGTAAAAAAGCTTCAGC  
ATAGTACTGAAGAGCACCTAAGAGACTTTGAAAGGGAAATGAAATCCTGAAATCCCTACAGCATGACAACATTG  
TAAAGTACAAGGGAGTGTGCTACAGTGTGGTGGCGTAATCTAAAATTAATTATGGAATATTTACCATATGGAA  
GTTTACGAGACTATCTTCAAAAACATAAAGAACGGATAGATCACATAAACTTCTGCAGTACACATCTCAGATAT  
GCAAGGGTATGGAGTATCTTGGTACAAAAGGTATATCCACAGGGATCTGGCAACGAGAAATATATTGGTGGAGA  
ACGAGAACAGAGTTAAATTTGGAGATTTTGGGTTAACCAAGTCTTGCCACAAGACAAAGAATACTATAAAGTAA  
AAGAACCTGGTGAAGTCCCATATTCTGGTATGCTCCAGAATCACTGACAGAGAGCAAGTTTTCTGTGGCCTCAG

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**FIGURE 319B**

ATGTTTGGAGCTTTGGAGTGGTTCTGTATGAACTTTTCACATACATTGAGAAGAGTAAAAGTCCACCAGCGGAAT  
TTATGCGTATGATTGGCAATGACAAACAAGGACAGATGATCGTGTTCCATTTGATAGAACTTTTGAAGAATAATG  
GAAGATTACCAAGACCAGATGGATGCCAGATGAGATCTATATGATCATGACAGAATGCTGGAACAATAATGTAA  
ATCAACGCCCCCTCCTTTAGGGATCTAGCTCTTCGAGTGGATCAAATAAGGGATAACATGGCTGGATGAAAGAAAT  
GACCTTCATTCTGAGACCAAAGTAGATTTACAGAACAAAGTTTTATATTTTACATTGCTGTGGACTATTATTACA  
TATATCATTATTATATAAATCATGATGCTAGCCAGCAAAGATGTGAAAATATCTGCTCAAAACTTTCAAAGTTTA  
GTAAGTTTTTCTTCATGAGGCCACCAGTAAAAGACATTAATGAGAATTCCTTAGCAAGGATTTTGTAGAAGTTT  
CTTAAACATTGTCTGTTAACATCACTCTTGCTGCGCAAAAGAAAAAATAGACTTTTTCAACTCAGCTTTTTGA  
GACCTGAAAAAATTATTATGTAAATTTTGCAATGTTAAAGATGCACAGAATATGTATGTATAGTTTTTACCACAG  
TGGATGTATAATACCTTGGCATCTTGTGTGATGTTTTACACACATGAGGGCTGGTGTTTATTAATACTGTTTTCT  
AATTTTTCCATAGTTAATCTATAATTAATTACTTCACTATACAAACAAATTAAGATGTTTCAAGATAATTGAATAAG  
TACCTTTGTGTCCTTGTTTATATCGCTGGCCAGCATTATAAGCAGGTGTATACTTTTAGCTTGTAGTTCCA  
TGTACTGTAAATATTTTTCACATAAAGGGAACAAATGTCTAGTTTTATTTGTATAGGAAATTTCCCTGACCCTAA  
ATAATACATTTTGAAATGAAACAAGCTTACAAAGATATAATCTATTTTATTATGGTTTCCCTTGTATCTATTTGT  
GGTGAATGTGTTTTTTAAATGGAACATCTCCAAATTTTCTAAGACTACTATGAACAGTTTTCTTTTAAAATTT  
TGAGATTAAGAATGCCAGGAATATTGTCATCCTTTGAGCTGCTGACTGCCAATAACATTCTTCGATCTCTGGGAT  
TTATGCTCATGAACTAAATTTAAGCTTAAGCCATAAAATAGATTAGATTGTTTTTTAAAAATGGATAGCTCATTA  
AGAAGTGCAGCAGGTTAAGAATTTTTTCTAAAGACTGTATATTTGAGGGGTTTCAGAATTTTGCATTGCAGTCA  
TAGAAGAGATTTATTTCTTTTTAGAGGGGAAATGAGGTAAATAAGTAAAAAAGTATGCTTGTTAATTTTATTCA  
AGAATGCCAGTAGAAAATTCATAACGTGTATCTTTAAGAAAAATGAGCATACATCTTAAATCTTTTCAATTA



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**FIGURE 320**

MGMACLTMTMEGTSTSSYQNGDISGNANSMKQIDPVLQVYLYHSLGKSEADYLTFFPSGEYVAEEICIAASKAC  
GITPVYHNMFALMSETERIWYPPNHVFHIDESTRHNVLRYRIRFYFPRWYCSGSNRAYRHGISRGAEAPLLDDFVM  
SYLFAQWRHDFVHGVIKVPVTHETQEECLGMAVLDMMRIAKENDQTPLAIYNSISYKTFLPKCIIRAKIQDYHILT  
RKRIRYRFRRFIQQFSQCKATARNLKLKYLINLETLQSAFYTEKFVKEPGSGPSGEEIFATIIITGNGGIQWSR  
GKHKESETLTEQDLQLYCDFPNIIDVSIKQANQEGSNESRVVTIHKQDGKNLEIELSSLREALSFVSLIDGYRL  
TADAHHYLCKEVAPPVLENIQSNCHGPISMDFAISKLKAGNQTGLYVLRCSKDFNKYFLTFATERENVIEYK  
HCLITKNENEEYNLSGTTKNFSSKDLLNCYQMETVRSDNIIFQFTKCCPPKPKDKSNLLVFRNGVSDVPTSPT  
LQRPTHMNQMVFHKIRNEDLIFNESLGQGTFTKIFKGVRRVGDYQQLHETEVLLKVLDKAHRNYSSESFFEAASM  
MSKLSHKHLVLNYGVCVCGDENILVQEFVKFGSLDTYLLKKNKNCINILWKLEVAQLAWAMHFLEENTLIHGNC  
AKNILLIREEDRKTGNPPFIKLSDPGISITVLPKDILQERIPWVPPECIENPKNLNLATDKWSFGTTLWEICSGG  
DKPLSALDSQRKLQFYEDRHQLPAPKWAELANLINNCMDYEPDFRPSFRAIIRDLNSLFTPDYELLTENDMLPNM  
RIGALGFSGAFEDRDPTQFEERHLKFLQQLGKGNFGSVEMCRYDPLQDNTGEVVAVKKLQHSTEEHLRDFEREIE  
ILKSLQHDNIVKYKVCYSAGRRLKLIMEYLPYGLRDYLOKHKERIDHIKLLQYTSQICKGMEYLGTKRYIHR  
DLATRNLVENENRVKIGDFGLTKVLPQDKEYYKVKEPGESPFWYAPESLTKFSVASDVWSFGVVLYELFTY  
IEKSKSPPAEFMRMIGNDKQGMIVFHLLIELLKNNGRLPRPDGCPDEIYMIMTECWNNNVNQRPSFRDLALRVDQ  
IRDNMAG

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**FIGURE 321**

AAACACTTTGTCTCCAAAAGGAAGACAGACTTCACGTCATTTCATCTGTTCAATACTCTTCCGAACAACAGGAAA  
TTTTGCCAGCTAATGATTCTCTTGCTTACAGTGACTCAGCTGGTAGCTTTTTTAAAAGAAGTAGACCGAGACATAG  
AACAAATAGTAAAGTGACAGACAATAAGAGAGAGAACCTCAATGAGGTAGTATCGGCCTTAACAGCACAAACAA  
TGCCTTTTGAACCTGATAACAAAAACACTCAACGTAAAGACCCCTATTATGGAGCAGACTGGGGAATAGGGTGGT  
GGACAGCTGTAGTGATAATGTTGATAGTAGGTATAATAACACCAGTGTATTTATTTGTTGTATTATGAAATTTTAG  
CTAAGGTGGATGTTAGTCATCATTCAACAGTGGACTCTTCACATTTACATTCAAAAATCACACCCCCATCACAGC  
AGAGAGAAATGGAAAATGGAATTGTGCCAACTAAAGGAATACATTTTCAGCCAACAAGATGATCATAAACTGTATA  
GTCAAGATTCTCAGTCACCTGCTGCTCAACAGGAAACATAGCAATTAGCTCATAATCAAATGTTAGTGGTCAGGT  
CACATGTGCATCTGGAATGTGGTGAATCAGTTATATCCAATAATAGCTTCAAAGGCAGAATTTAGAGAGATTGAG  
GATGCTTTTGTTTTTTAACAAAAGGGTTTCACACTTTGAAAATTTTTTGAGCAACTAGTTGTTGATGTTGAGAGCA  
GTTGATCCATAAATCTGGTGTGTGAATGTTTCAAGCAGAAATTAATTTAAATGTGTGTTTAGGAAGTACTTAACT  
TGGAAGATGTATCATTTTTTCTTAAAATGCATGTTTAAATTTTTATTTTTTAAAGTAATTTTTAAAAAGTTTATTAA  
TGTTAAATTTATGATGCAGAATGATAGCATCAGATGCTGCAGCTGAAAAAATTTACTACTATGAACCCCCAAA  
ATATTCAGTTGCAAGAAAATTTGATTCTAAAATTTATTCATGGTAGGATACGTAACACACCCCCCTTCAAACTTTTA  
AAAAATACATTTAGCACATGTGCTATGAAAGCATACTGTAAGAGAAAGGGGAAAGTGATTTATAATTCCTACA  
ACAGAGGCCAAGAAATAGATTAATAATTTTCAAGACCCCAAAATAATGTATTATGGTTGGGAAGTCAGTAGAAC  
ACTGGAATAGGTGAAGACCTGACAGTAATTTTTGTCTTAAGAATGCTTTCTTTAGGACAGACCCCTTAACTCAC  
CTCTGTGCATCTGTTTTTAAAATGATTATATTTGCCTCTGATATTTGAAAGCACTTTTGTAGTTTGTATGATGAA  
AAATATATTAACGTGCATATTACCATTATTTAGGAAATAATTCCTATATACTGTGATAAATCATTGCTGTTAC  
ATACAGTAACATGCCTTAATTACATTTAATGCCTTACTGCTTTATGTAAGTAAATCCAAGTTTCAGAATTAAAA  
TAAGCATTATTTTCATATGGTCCAATCAGATTCGTTACATAGGCTATATAAATTTGTCTCCATTTTCACCATCAAG  
CACAAATAATTGGGTCAAACTGCCTTTGAGGTCTGTTGAAGAAAATGGTTTCAATTAAGCAAAAAAGAGTAGAGGT  
ATTTTATATTAGCAGTAACAGACAAATTTATTTAGTAATCCCTTAACTCTGTTTTTCAAAGAGAAAAATATCCAAT  
TTAGACTTTTTTCTGATCTCTATATATAGCATCAAGTTGGGAAACAAAGGCCAAAGGTGTATAGATTGCTTGAA  
AGGGGGTGGTAGTGCCTCTTTTTAAGATCTGTTGAGTCGGCTACAGTCTGGCTAAGTAAGAAGCATTTCGATACT  
GATTCCATCATTTAATCTTTAAAAGTATGTGTTTTAAAAATGTAACCAGAATGATTCTTCAATAGAAATGAGATT  
TGGTGGAGTCTGGATTGCCTGTTTTGTATATAATATATACTTAAGATATATAATACCACCTCATTTTCTGGGCAT  
TATTTCTAATTGTTGATGTTTCAGGCTTTTGATAAGTCATTTTATATATTTCAAATTTAACTCAGAATAAGTAA  
ATATTTATGGCAAATGCAGTTTTATGTACTTTCAGGAGAAGACCATCAGGAAAAGACAGGACAAAGAAGTCAAAC  
ATTAAAGCCCTTGCAAATATTAGAGGACCTTAGACAATTACCAAAAAGTGTTTAAATAGGGAAGTTGCAAATGATT  
CTCTTAGTAAATTAACATTTAAAAAGTAGTTTTAATGTGCCTTGGGCATCTTGAAAAGAAGAGTGTGATATAAT  
TTATGCTTAGTGTTAACTGGTCATTTTACATTGTATTTATTAAGTCTGCTGAAAATGAGGTTTTAAGGAAGAAA  
ATGCAGATTATTTAGGGTAAACAGGCCAGGTGTCCTTTGAAGAACTTTGTTTACATCAAATTGATGAAATTACA  
GTGATTCCTTACTTTTTTGTAGTTGTACTTTGAAATGTATGGGTTTCGATTTCCAAAATATGTAACCTTATTT  
TTTAAAGGAATAAGGTGTGCTGTGTATTTGTTGATTAAAAATCATTGTCTTGACAGGTATCCTTTTTTGAAGGA  
AATATACATCCTTATAACACATCAGGTAGTTTTCTTTTTCTGTATTTAAATTATATATTTGAATTAATTGAATA  
TAATTTGAGTTACATATAATTCTATATAAAGGTTACATATTGAATTATGGTTCTAATCTGTTTAGGAAAGAAATG  
AATTTTCTAAGCATTTAATACATTTGGAATAATTTAGTTTCTAAAAAGTACTAATGTAAGTTAAGTTTATATCA  
AATGCAAAATACCTTGATAACTAACAAGCACAGTTATTGTTTAACTTATGGATTTTAAATGTTGTTGACACCCCT  
TCTTTGAATTTGTTGCTTTACATGTGTGTCTGTGTGTGTGCTGCATGTGTGCACGCATGTACTTGTATGCAATG  
TAAAAGTAACAGCAGAATCATTGCATTTGGTTTACTTAAAAATTTTGGAGTTAGCAAGTAAACAAAAGCTGATAG  
TTTTATGAAGTCTCGGTTAAAATAAAATTTCTTTGCTATCTCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 322**

CATAACACAGCCAGCTTTTTGCTAGCCAGACCAAACCTCAAAGAGCAATGGCTGTACTTCTGAAATAGCAACACTT  
TGTCTAGCTGAGATTTGGTAATAAGATTTTTTTTTTAAGTTTTTAAAXGAAGCTCAGTGGTTGAAAGTCTGCTT  
AACTGAAACAGTAACATCCATGATGTGTGTTTTGTGCATGTTTGTATTGAAAGGCCCTTCATGTTTTTGTCTT  
GTTTGTTTTTCTCTCCTAAGACCTTGTCTTTTTTTTGTAGCAAAAGTTTTTTTTTTTTTTCCTTTTACTTCTCA  
GTTGACTGAATTCTGTTTTACCGGATTTTTGACTAAAATAGCTATTGCAACAGAGGCTACTCTTGGGTAAAGG  
AAGAATGTAGTTTCGTTTTATGTTTAATATCGCTCAAAGAAAAATAAAAGCATCTCCCTCTAACACCACCAGACT  
TTTCCTCTCTGTACCTTATCATGTAAATTTTGCTATTTGATTTTCACCTGGGTGTTTCCTTTAATGTGCAAAAA  
TTTAAGGCTATTTAGCTGACAACCTGCCTAGGGTTGTAAACAGGTTATCAAGAATCTGAAAGTCTAAGATAGG

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**FIGURE 323**

GGGCTTCCTGGGGAGGGTGTGGCAGGGTGGTGGGCATCCCCTCCCTCACCAAAGCATGGGCTCTTTGTTTCCTCT  
TTGCCAGGCCTGGGTCCTTCCCAGTGACCCCTCAGCCTTCACTTCCTCCTCACTCCCGGGGAGCTGTGACAGGTG  
TTTGGGGGAGGGGAGGGGGGTATGATAAGCTGGGACAGCTGCACCCACCGGTGCTCTGGTGAGATGGGGGGCCCCG  
GATGTTGGGGAGACACATCTGCTGGGTTCAGCCCAAGGTCCCCAACCTGGCTGTCTGGCCTTGCTGTGCACC  
CCCCGTGCCCCTGGCAGGGACAGGAAGCTCCCCCCCCACCCCGCTTTGGGCAGTTTGCCCTGGCACGGGCCTGA  
TCTGTTTTCTCCCCAGAGCAGCTGCTGTTCTGTCTGCTGGGCAGAGGGCTGGGTTCCCTCCGAGGTAGGCAGGGG  
CCTCAACCCAGAGCCCCCTCTCACACCTCTTTCAACTCAGGCTTATGTCTCTCCCTCCTCCCCACCCCCACCCC  
AGGAAGAGGAGATCCCAGAACTGGAGATTGACGTGGATGAGCTCCTGGACATGGAGAGTGACGATGCCCGGGCTG  
CCAGGGTCAAGGAGCTGCTGGTTGACTGTTACAAACCCACAGAGGCCTTCATTTCTGGCCTGCTGGACAAGATCC  
GGGGCATGCAGAAGCTGAGCACACCCCAAGAAGTGAGGGTCCCCGACCCAGGAGAACGGTGGCTCCCACAGGA  
CAATCGCTGCCCCCAACCTCGTAGCAACAGCAATACCGGGGGACCCTGCGGCCAGGCCTGGTGCCATGAGCAGG  
GCTCCTCGTGCCCCCTGGCCCAGGGGTCTCTCCCCCTGCCCCCTCAGTTTTCCACTTTTGGGGTTTTTTATTGTTA  
TTAACTGATGGGACTTTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 324**

MLGRHICWVSPRSPTLAVWPCLSPPVPTGRDRKLPPHPALGSLPWHGPDLFSSPEQLLFCLLGRGLGSSEVGRG  
LNPEPLSHPLSTQAYVSPSSPTPTPGRGDPRTGD

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**FIGURE 325**

GGCACGAGGCTGAGGTGTATTTCTGGGTCTTGCTGGGGCTGAGAGAGACCACAGCCCTTTGGGGGGTACAAACAAG  
AGTTTCAGTTGCTGTGAATTTCTGCCACTGTGCCAGCTCTGAAGCCTCAGCTCTTGCCAAACAGACCCGAGACCCA  
TGTCAGCCCCACTGGATGCCGCCCTCCACGCCCTTCAGGAGGAGCAGGCCAGACTCAAGATGAGGCTGTGGGACC  
TGCAGCAGCTGAGAAAGGAGCTCGGGGACTCCCCAAAGACAAGGTCCCATTTCAGTGCCCAAGATCCCCCTGG  
TATTCCGAGGACACACCCAGCAGGACCCGGAAGTGCCTAAGTCTTTAGTTTCCAATTTGCGGATCCACTGCCCTC  
TGCTTGCGGGCTCTGCTCTGATCACCTTTGATGACCCCAAAGTGGCTGAGCAGGTGCTGCAACAAAAGGAGCACA  
CGATCAACATGGAGGAGTGCCGGCTGCGGGTGCAAGTCCAGCCCTTGAGCTGCCCATGGTCACCAACCATCCAGG  
TGATGGTGTCCAGCCAGTTGAGTGGCCGGAGGGTGTGGTCACTGGATTTCTGCCAGCCTCAGGCTGAGTGAGG  
AGGAGCTGCTGGACAAGCTAGAGATCTTCTTTGGCAAGACTAGGAACGGAGGTGGCGATGTGGACGTTCTGGGAGC  
TACTGCCAGGGAGTGTCTGCTGGGGTTTGCTAGGGATGGAGTGGCTCAGCGTCTGTGCCAAATCGGCCAGTTCA  
CAGTGCCACTGGGTGGGCAGCAAGTCCCTCTGAGAGTCTCTCCGTATGTGAATGGGGAGATCCAGAAGGCTGAGA  
TCAGGTGCGAGCCAGTTCCCCGCTCGGTACTGGTGCTCAACATTCTGATATCTTGATGGCCCCGAGCTGCATG  
ACGTCCTGGAGATCCACTTCCAGAAGCCCACCCGCGGGGGCGGGGAGGTAGAGGCCCTGACAGTCGTACCCCAAG  
GACAGCAGGGCCTAGCAGTCTTCACCTCTGAGTCAGGCTTAGGGGCCTCCCCTTCTCATCCTCCCCACCCCCCGC  
CAAGGTTCTCACACTGGCCTGGGCTTGGGTGCCATATAGGAGGTCTGTATGTTACCAACAGTGCGGAGGGGTC  
ACACATTGCAAAACACTGCCCAGAACAGTAAAAAGAGCCTGCATGCCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 326**

MSAPLDAALHALQEEQARLKMRLWDLQQLRKELGDSPKDKVPFSVPKIPLVFRGHTQQDPEVPKSLVSNLRIHCP  
LLAGSALITFDDPKVAEQVLQQKEHTINMEECLRVQVQPLELPMVTTIQVMVSSQLSGRRVLVTGFPASLRLSE  
EELLDKLEIFFGKTRNGGGDVDVRELLPGSVMLGFARDGVAQRLCQIGQFTVPLGGQQVPLRVSPYVNGEIQKAE  
IRSQPVPRSVLVLNIPDILDGPELHDVLEIHFQKPTRGGGEVEALTVPVQGGQGLAVFTSESG

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**FIGURE 327**

ATCGAATCCATACCCGAATTTCAACTTTAACATCTCTCATCAAGGAGACTATGCAGTGCTTGCTGCTGAACCTGA  
GCTGCAAGTTGGAATTGATATAATGAAGACTAGTTTTCAGGTCGTGGTTCAATTCAGAATTCCTTCATATTAT  
GAAAAGAAAAGTTTACCAACAAAGAATGGGAAACAATCAGAAGCTTTAAGGATGAGTGGACTCAGCTGGATATGTT  
TTATAGGAATTGGGCACCTTAAGGAAAGCTTCATAAAAGCCATTGGTGTGGACTAGGATTTGAATTGCAGCGGCT  
TGAATTTGATCTATCTCCATTAACTTGGATATAGGCCAAGTTTATAAAGAAACACGTTTATTCCTGGATGGAGA  
GGAAGAAAAAGAATGGGCATTTGAGGAAAGCAAAATAGATGAGCACCATTTTGTTCAGTTGCTCTTAGGAAACC  
CGACGGATCTAGACATCAGGATGTTCCATCTCAGGATGATTCCAAACCAACCCAGAGGCAATTTACTATTCTCAA  
CTTTAATGATTTAATGTCATCTGCCGTTCCCATGACACCTGAAGATCCTTCATTTTGGGACTGTTTTGCTTCAC  
AGAAGAAATTTCCAATACGAAATGGTACAAAGTCATGATGATTCCCTGAGTAACAAAGGGAAATGAAAACCTGTTTG  
TGATCTTCCGTATTTCACTGAAAAATAAATGCTTGTGTTAGTATCAAAATTTTATTTACGAAAGTTTTTAAAGAAC  
AGAAACTTTTCCAATTAATAAAAAAAAAAGCAGACTTCTGGTTCAAGATAGCTCACTGGAATACATGTTTACCTCTT  
TCTTTCTAAATTCGATTGAATTGATAGGAAGGATGGCGGAATCTTAAAGTGATACATGCTAACTGTAGAAAAAA  
ATAGAAAATGCACATAAGCAAAAGGAAACATTTAAATGCTATCTTTCAAAGATAACTACTCTTAAACCTTGAGT  
ATCTTTTCAGACCTTTTTCTTGGCAAATGAATCCATATTGACATATTTGATTTTTTTTAAAAACATGGAAACGTA  
CTGTTTTGTAAATTCTTTTTAACTGCACATCTACTGTTTATAAATATACCTCTGTAACATAACTTTTTGTGGTTC  
TAATGTACTCTGTTGTATAGCTAATACAAGTTAGGATGCTTTTGGCCAGAGGTAACAGTGTCCAAATATAATTGG  
CCTAAGTAACCTAGGAAATTGTTTGACATAACACAGGGTTCAGGGGTGTCATTAAAGACACACTTTTTTGCCTT  
GACCTCAGTTGGTTTGTGTTTGCCTTAGGCTATTCCACCTCTCGATCACAAGAGCTGCTGCTATAACTTCCAGTTT  
TACATCTTTGTAAATTTGTATCTCAAAGGCAGAAAAGGCCATTTCTCTCTCATTGTTTTATCCATGAGGAAGA  
TTTTTAACAAAAGCCTCCAGAAGATTTCCCCTCAGTTTCCATTGACTTAGATCAGGTTACAGAGAAAGGCAATGT  
CTGACATTTTTTGGTCTCTGTTAGAAAGTAGACTCTGTTGAAAAGAAAGAAGCTAAGCTAGGTGTGGAGAATGGAAT  
TGGAAGCCCCTGCTTCCCATAGAAAGGTTTACCATAATTTACTTACTTTTTCTGTGTTAGACATTTTGATT  
ATCTGCAGTTTATTACTACAAGCAGTGGCAGAGTGAATGTCCTTGTACATTTTGAGTTACATGCTTAATTATGTC  
CTTGAGAAAGTTTCTAATAGTGAATGATTGGTTTGAAGTTTCAAGGGCTTTAATTATACAATTTACCCCTCT  
AATTAGTACTATATGTATGTGACTTCCCTCCCCCTGCCAGAATACTCCTTGGTCAATTGTAGGTATTCTTTTTGG  
TTTAATTTTTTGCCAATGTAATTAATAAATGGTATGTCATTTTTAAATTTGTATTTCTTTCATTACAAATAAGAT  
TGTTATGTCAGTATTGTTATTGGCTTTTCGTATTCCTCTTAACGTGATCCGTCTGTTTATTGTTTTACCTGTTT  
TCGTTTTAGCAAGTAGTACTTAATTTAAAGTGTGAACCTTAATATATAAGATGCCAGGACCATCATATTGATGACA  
AAAATCTATTATGTGGTTGTAGTGCATGCTTGGAGTTAACTCTTAAGTATCAAGAAGTAAATAATTTTCATTG  
TTTCTGTTACTAACATTAAAGTGTGCAAATTGTATAAAATTAGGTACTTCGATTAGTAAAAAGAAAAAATTTGA  
ATGTTTTTTTTTTTATTTTATTAAGCATGCCAGTTATGCCAAGCATAGTAAATAAAGGTCAAGTAGCATTATA  
ATAGAGGAAGTATTGTTATCCCTAGCATGAGTGTAATGGTGATATGAAAAACTTTGTCTTGTCTATTATAATAA  
AAAAATGAACATTTATTATGAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 328**

GACGCGCTGAGGAGGAGGAGGAGGCGGGGGCGGCCATGGCTGCTGTGGTGGTGGCGGCTGCGGGTGGCGCGGGA  
CCGGCGGTCCCTGCAGGTGGCCGGTCTCTACCGGGGCTGTGCGCGGTGCGCAGCCGCGCCCTGGGCCTGGGGCTC  
GTGTCACCCGCGCAGCTGCGCGTCTTCCAGTGCGCCCCGGCTCGGGCCGGCCCGAGGGGGGCGCCGACGGCAGC  
GGGGTCGGGGCCGAGGCCGAGCTCCAGGCCAACCC TTTCTACGACCGCTACCGCGACAAGATCCAGCTGCTGCGC  
AGGTCAGACCCAGCTGCTTTTGTAGTCCCGCTGGAGAAACGCAGTGAATTTGGAAGCAGCCAGTGGGGCATTCC  
AGGCAAGGTGATTTTATCAAATGTGTGGAACAGAAGACAGATGCCTTGGGGAAACAGTCTGTGAACAGAGGATTC  
ACTAAGGACAAGACTCTCAGTTCAATCTTTAACAT TGAGATGGTAAAAAGAAAAAAGTGCAGAAGAAATAAAACAG  
ATTTGGCAGCAATATTTTGCAGCAAAAGATACAGTCTACGCAGTTATTCTGCAGAAAAGTTTGATTTGATCTGG  
AACC GGCTCAGTCTGTCCAACATTTCTATGTGCTCTGCCAAGAAGGGAAGGTTATGAGTTTTTGTAGGACAA  
TGGACAGGTACTGAACCTCACTTCACTGCACTTATAAATATTCAGACCCGAGGGGAAGCTGCAGCCAGCCAGCTG  
ATTTTATATCACTATCCTGAACCTTAAGGAAGAAAAGGGCATAGTGCTGATGACTGCAGAAATGGATTCCACATTT  
CTGAATGTTGCTGAGGCACAGTGCATCGCCAACCAAGTTCAGTCTTCTACGCTACTGATCGGAAAGAGACCTAC  
GGGTTAGTGGAGACCTTTAACCTCAGACCAAATGAGTTCAAATATATGTCTGTCTATCGCTGAATTGGAGCAAAGC  
GGACTTGGAGCAGAAGTGAATGTGCCCAGAACCAAAATAAGACTTAGAACTGTACAGGTTGGCCCTTCACCTAG  
TTGACTCAGCCCTCGATAGTCTAGAGCCACCCCTCCTCAGGAAGTCAAGAGCTCAGCATTATAATGAGCAGT  
TGGTAATGAGTTGCCCTATGTGCTTGTGCGCAAGCAGTCACAGAGATGAGCCCTATTACTTGATATTCAGGAACAA  
AGGTACCTGAACATTCTGATAATTATCTCAGCATACTTGAGGTTTCCTTTTTTAAGTGTTCGAGGTTATAACAAG  
AGACAGCCAAGGACCTACAAGACAGTTGACTTGATTTTGCACAGTGTAACAGCGCAGTTGCATTCTGGCCACTTT  
GACCTTATAGCTCCCAAATGATGAGTTTGTCTCTTTATGAAGTCAAGAGGATAATAAGCTTGAAGACCTGCT  
GTAGTTAGATATGGGCTTTAATCCTTCCCATGCACCAGTCAGCTGAACAAAAGCATAAGCCAAACATCCTGTTTA  
AACTGTAGAATAACCAGATATCCCATCAGGTTAAAGACTTCATCTAGATGATGCCCCCAGAGATGCCTTTAGT  
GTAAGTAGCTGGCTTGGGGTATCAGCAAATTTAGGTATAGTTAGATAAACAGGTACAGGGCCTGCATACTATTA  
AACCATAGTTTGTGGCACCCGCTTTTCTAACTCCACCTGTTAGAAGCTATGTGTTTGAAGGAATGAATCAGTGCA  
GTATAAATAAAATCTTTTGTAAAGGAGAAGACCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 329**

MAAVVVAAGGAGPAVLQVAGLYRGLCAVRSRALGLGLVSPAQLRVFPVRPGSGRPEGGADGSGVGAEAEELQANP  
FYDRYRDKIQLLRRSDPAAFESRLEKRSEFRKQPVGHSRQGDFIKCVEQKTDALGKQSVNRGFTKDKTLSSIFNI  
EMVKEKTAEIEIKQIWQQYFAAKDTVYAVIPA EKFDLIWNRAQSCPTFLCALPRREGYEFFVGQWTGTELHFTALI  
NIQTRGEAAASQLILYHYPELKEEKGIVLMTAEMDSTFLNVAEAQCIANQVQLFYATDRKET YGLVETFNLRPNE  
FKYMSVIAELEQSGLGAE LKCAQNQNKT

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**FIGURE 330**

CTGTCACCAAGCAGGAGAGTTAAGGATTCACCATGAGCTGGGAAATGCTTTTGCCATGAGTATGAGCAAATTCCC  
TCTTTCCCTGAATCATGGACATTCTAGATTAAAAGAACATTTTTGTGCTCTTAACAAGAAAACCATGGCCCTCC  
TTTGTTCAGTATCACAAGAAATAAACCCACAGCTCCAGAGAAGGTGACCATTCTCAGAACTCCAGCTATTCACT  
CTCCAGGGAGAAGGACCTCAAATCGCCACTCTTTGGGCGGCAGGTGCGGTCCCCACGGCCGGCTCTACGAGGAAG  
AGTTCTGGCTCTTTTGTCCACTGAGATGGTCTTGGTTTTTCACTTAACAAATTTTTAATGGAATCTTTGTTTTT  
GTTCTCCATCTTGTGTGTTAGAGTCTCTCGGCCTTTATTTACAAATTCCTTGCAACTAGAGCGCTCCTTCCCCAA  
GATATGGTAGTGAGAGTAATTTTTATTGTAGCTGTAGTCTCCATCAGTAACAGCAGGCCCTGGAAGACTTGATC  
ACCTTTTTCTGTGTCATTTTCAGTCAAAGAGGGCCTCTCTTACATCTTGTTTGCTTTCAAATCCCCAAATATCAT  
CTCCATCTCCCAATTAATTTTATTCTCTCTTTCTCTGTATTGCTTTCTCTGTTTTTTTTTAAAAAAAAGCA  
TGAAAAAGGAAGAGAAAAAGTTTGATATGCCAAGGACAGATTTTGAAACAGACTTGGTAAATGTTTTCCTTAGCT  
CCTTCATGGGCATGCTGGTGAAAGAATAAATACATCCAATTAAGCTCATGCTGGGGTCTGGGGGAGAAGAGGATAC  
TGAAACATTTGTGAAATGTATGAATGCACCTCTGTAACCAGATACTTCTGTTCTTCTGTTCAAATTTGTGGGGTTT  
TTGTTACAGTTAGGACGCCCCATGAAGATTTAGGGGTGAAAAAACAGCAGAGTATTTATTAACTACAGCATTGT  
ACAATTAGCTTAGTAACACTATGGAATAAGCTAAAACATATCACAGTTTTTACATGGGCCAAAACATGAATTGAG  
TATGTGGTCACATGAAAAACACGCATGAATGAATAAAACACTCTTTGGTGGTGACTGAGGCATCATTAGAAGGCC  
AGACGATTTCCACTATTCACAGCATTTCCTTTTCTCAGAAGGACTCTTTATATTTCCATGTAAATCTAGATCTTT  
GGAGCAATTAAGATGGAATTACAATTTCTAGGGAGCATTTTAAGGAAAATGTTTTGGCTTTTTTCATAATTTATG  
TCTTACAGTATGGAATTATAATACGAAAATCTTTATATGAGTTTTGGCTTCTTGGTATTTGTACTTATTCAGGGG  
AAAAAGTCTTTTCGATTACTTATGCCTCTATAGAGCTTAATTTCTTGAGAAATTCAACAGTCATTTTACCAGCAT  
AATTTTATCTTAAGGAATAACTAATAGGAAAAGTCAGCTTAATTATTTAAGGCCCTAGTTTCTACATATAATATA  
TTCGATAGTAATGAAAATCTGCCGTGGAATTAATAAGTAGTAACAATAAACTTCATATTTAGAATGCAAAG  
TCTATAAAGAATAATTTTACATGATCCTCAATATCAACTCCAGTTTTAAAAGTGTTATTTTTAAAACATTTGAAA  
CCAAGTACTGTTTAATTTCAATCAGAAGATGCAAATAAATACTTTGATCTATGTTTGATTTTGCTAATAATATTT  
GAAGGAGATTGCCTACCAAGGACAAAACAATAAATTTAAAAATCAAACGATTTCTCCATACGCTCATAGTCACAT  
ATGGAATTTTGAGAAAATAAAGCATGCTGTCTTTAGGAATTTTATACTTCTTTGTCTTTCTTCCTTAATATTTG  
CTTCTAGCTGCTCTTGGCAATGATGAATTGTTATGTATGCATTAATGTTTTGCAGCCCCAAAAGTTGTTACATTT  
TTCCTATATAAGATCTGTGGAGTGTGTGTTTCAAAGAGAGAACTACAGAAATGTTAAAGCAGGAAAACCTGAATG  
TGATGTGCACATTTTCATCCCACATGGACAATGTATGTGTTTTAATAAATGGAATTTTCAGATTCAAAAAAA  
AAAAATTC

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**FIGURE 331**

CTAAAGTGGAGCCCAGCGGCGGGTGTGAGAGTCCGTAAGGAGCAGCTTCCAGGATCCTGAGATCCGGAGCAGCCG  
GGGTCGGAGCGGCTCCTCAAGAGTTACTGATCTATGAAATGCGCAGAGAATGGAAAAAATTGTGACCAGAGACGTG  
TAGCAATGAACAAGGAACATCATAATGGAAATTTACAGACCCCTCTTCAGTGAATGAAAAGAAGAGGAGGGAGC  
GGGAAGAAAGGCAGAATATTGTCTGTGGAGACAGCCGCTCATTACCTTGCAGTATTTTTCTCTGGAAATCCTTG  
TAATCTTGAAGGAATGGACCTCAAATATATGGCATCGTCAAAGCATTGTGGTGTCTTTTTTACTGCTGCTTGCTG  
TGCTTATAGCTACGTATTATGTTGAAGGAGTGCATCAACAGTATGTGCAACGTATAGAGAAACAGTTTCTTTTGT  
ATGCCACTACTGGATAGGCTTAGGAATTTTGTCTTCTGTTGGGCTTGGAAACAGGGCTGCACACCTTTCTGCTTTATC  
TGGGTCCACATATAGCCTCAGTTACATTAGCTGCTTATGAATGCAATTCAGTTAATTTTCCCGAACACCCTATC  
CTGATCAGATTATTTGTCCAGATGAAGAGGGCACTGAAGGAACCATTTCTTTGTGGAGTATCATCTCAAAAGTTA  
GGATTGAAGCCTGCATGTGGGGTATCGGTACAGCAATCGGAGAGCTGCCTCCATATTTTCATGGCCAGAGCAGCTC  
GCCTCTCAGGTGCTGAACCAGATGATGAAGAGTATCAGGAATTTGAAGAGATGCTGGAACATGCAGAGTCTGCAC  
AAGACTTTGCCTCCCGGGCCAAACTGGCAGTTCAAAAAGTAGTACAGAAAGTTGGATTTTTTGGAAATTTTGGCCT  
GTGCTTCAATTCCAAATCCTTTATTTGATCTGGCTGGAATAACGTGTGGACACTTTCTGGTACCTTTTTTGGACCT  
TCTTTGGTGCAACCCTAATTGGAAAAGCAATAATAAAAATGCATATCCAGAAAATTTTTGTTATAATAACATTCA  
GCAAGCACATAGTGGAGCAAATGGTGGCTTTCATTGGTGTGTCCCCGGCATAGGTCCATCTCTGCAGAAGCCAT  
TTCAGGAGTACCTGGAGGCTCAACGGCAGAAGCTTCACCACAAAAGCGAAATGGGCACACCACAGGGAGAAAAC  
GGTTGTCTTGATGTTTGAAGGTTGGTCTGTGTCTATGGTGTGTTACTTCATCTATCTATCATTAACTCCATGG  
CACAAAGTTATGCCAAACGAATCCAGCAGCGGTTGAACTCAGAGGAGAAAACATAAAGTAGAGAAAAGTTTAA  
ACTGCAGAAATTGGAGTGGATGGGTTCTGCCTTAAATTGGGAGGACTCCAAGCCGGGAAGGAAAATTCCTTTTT  
CAACCTGTATCAATTTTTACAACTTTTTCTGAAAGCAGTTTAGTCCATACTTTGCACTGACATACTTTTTCTC  
TCTGTGCTAAGGTAAGGTATCCACCCTCGATGCAATCCACCTTGTGTTTTCTTAGGGTGGAAATGTGATGTTTCAGC  
AGCAAACTTGCAACAGACTGGCCTTCTGTTTGTACTTTCAAAAGGCCACATGATACAATTAGAGAATTCCCAC  
CGCACAAAAAAGTTCCTAAGTATGTTAAATATGTCAAGCTTTTTAGGCTTGTACAAATGATTGCTTTGTTTT  
CTAAGTCATCAAAATGTATATAAATTATCTAGATTGGATAACAGTCTTGCATGTTTATCATGTTACAATTTAATA  
TTCCATCCTGCCCAACCCTTCTCTCCCATCTCAAAAAAGGGCCATTTTATGATGCATTGCACACCCTCTGGGG  
AAATTGATCTTTAAATTTTGAGACAGTATAAGGAAAATCTGGTTGGTGTCTTACAAGTGAGCTGACACCATTTT  
TATTCTGTGATTTAGAATGAAGTCTTGAAAAAACTTTATAAAGACATCTTTAATCATTCCAAAATTGTGTCCG  
TTTTCTTGAGCGTTTTGATTTTTTACTTTTAGCTTATACCAGCTGAATGGCAGCCTTGCCTAATCCACCTACAAC  
AAGAATTTCTTAAGCTTTCTTTTATTTGCATGAGAGAGCCACTACCAAGGCATGTTTTGTTATGCTGAAACTGGG  
CTGCTGCATACTGCTAAATGGCACCTCTGGGATTGGCCTACCTGGGGATTCTTGTTTTGTGAAAACAGGAGAGG  
AGAAATATCTCATACAAGTGAAGGATACTGGAGAGAGAAATTACCCATTTCTAAAAAAAACACACTCTGTCTG  
TATCTGTGTTAATGTTTTCTAGCATGTACTCTGGTTTCAACAGACACAAATTTATATGTTAACCAGTTTTCTTG  
CCGTTCTGTAAGTGTTTTATTCTTAGTGTGATTTTTTCCATTGGGATGTTTTTGATTGAACTTGTTCAATTTGT  
TTTGCTTGGGAGGAAAAATAACAATTTTACTTTTTTCTTAAAAAAAACCA

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**FIGURE 332**

MAENGKNCQRRVA<sup>4</sup>NKEHHNGNFTDPSSVNEKKRREREERQNIVLWRQPLITLQYFSLEILVILKEWTSKLWHR  
QSIVVSFLLLLAVLIATYYVEGVHQYVQRIEKQFLLYAYWIGLGILSSVGLGTGLHTFLLYLGPHIASVTLAAY  
ECNSVNFPEPPYPDQIICPDEEGTEGTISLWSIISKVRIEACMWGIGTAIGELPPYFMARAARLSGAEPDDEEYQ  
EFEEMLEHAESAQDFASRAKLAVQKLVQKVGFFGILACASIPNPLFDLAGITCGHFLVPFWTFFGATLIGKAIK  
MHIQKIFVITFSKHIVEQMVAFIGAVPGIGPSLQKPFQEYLEAQRQKLHHKSEMGRPQGENWLSWMFEKLVVVM  
VCYFILSIINSMAQSYAKRIQQRNLNSEEKTK

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**FIGURE 333**

ATGGATCTAAAGACAGCAGTATTTAACGCAGCTCGGGATGGCAAACCTCCGGCTTCTCACCAAATTGTTGGCAAGC  
AAATCCAAAAGAGGAGGTTTCCTCCTTGATCTCTGAAAAACAAATGGGGCCACGCCACTCTTGATGGCCGCCAGG  
TATGGGCACCTTGACATGGTGGAATTCCTCCTAGAGCAATGCAGTGCCTCCATAGAAGTTGGGGGCTCCGTC AAT  
TTTGATGGCGAAACCATTGAGGGGGCTCCCCCTTTATGGGCCGCTTCTGCAGCAGGACATCTGAAGGTGGTCCAG  
TCCTTGTTAAATCATGGAGCATCTGTCAACAACACGACTTTAACCAATTCAACTCCTCTTCGAGCTGCGTGTTTC  
GATGGCCATTTGGAAATAGTGAAGTACCTTG TAGAACACAAAGCTGATTTGGAAGTGTCAAACCGACATGGGCAT  
ACGTGCTTGATGATTTTCATGTTACAAAGGACATAAAGAGATTGCTCAGTATTTACTTGAAAAGGGGCGAGATGTT  
AATAGAAAAAGTGTCAAAGGTAATACTGCATTGCATGATTGTGCAGAATCTGGAAGTTTGGACATCATGAAGATG  
CTTCTTATGTATTGTGCCAAGATGGAAAAGGATGGTTATGGAATGACTCCCCCTTCTCTCAGCAAGTGTGACTGGT  
CACACAAATATTGTGGATTTTCTGACACACCATGCACAGACCAGCAAGACAGAACGTATTAATGCTCTAGAGCTT  
CTGGGAGCTACATTTGTAGACAAAAAAGAGATCTGCTTGGGGCTTTGAAATACTGGAAAAAGGCAATGAACATG  
AGGTACAGTGATAGGACTAATATTATTAGTAAACCAGTGCCACAGACACTAATAATGGCTTATGATTATGCCAAG  
GAAGTGAACAGTGCGAGAAGAGCTAGAAGGTCTTAT TGCTGATCCTGATGAGATGAGAATGCAGGCACTATTAATC  
AGAGAACGTATTCTTGGTCCTTCTCATCCTGATACCTCTTACTATATTAGATATAGAGGCGCTGTCTATGCAGAC  
TCTGGAAATTTCAAACGATGCATCAACCTATGGAAGTATGCTTTGGATATGCAGCAGAGCAATTTGGATCCTTTA  
AGCCCAATGACCGCCAGCAGCTTATTATCTTTTGCAGAACTATTCTCCTTTATGCTACAGGATAGGGCTAAAGGC  
CTGCTGGGTACTACTGTTACATTTGATGATCTTATGGGCATACTTTGCAAAGCGTCCTTGAAATAGAGCGAGCT  
ATCAAACAACTCAGTGTCCAGCTGACCCATTACAGTTAAATAAGGCCCTTTCTATTATTTTGCACCTTAATTTGC  
TTGTTAGAGAAAGTTCCTTG TACTCTAGAACAAGACCATTTCAAAGCAGACTATATACAGGTTTCTTAAGCTG  
CATCCAAGGGGAAAGAATAACTTCAGCCCTCTTCATCTGGCTGTGGACAAGAATACTACATGTGTAGGGCGGTAC  
CCTGTTTGTAAATTTCCATCTCTACAAGTTACTGCAATACTGATAGAATGTGGTGCTGATGTGAACGTCAGAGAC  
TCGGATGACAACAGTCCCCTG CATATCGCTGCTCTTAACAACCATCCAGACATCATGAATCTCCTTATTAAATCA  
GGTGCACATTTTGATGCCACAACTTG CACAAACAACTGCTAGTGAYTTGCTGGATGAGAAGGAAATAGCTAAA  
AATTTAATCCAGCCTATAAATCATACCACATTGCAGTGTCTTGCTGCTCGTGT CATAGTGAATCATAGAATATAT  
TATAAAGGGCATATCCCAGAAAAGCTAGAGACTTTTGTTTCCCTTCATAGATGA

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**FIGURE 334**

MDLKTAVFNAARDGKLRLLTKLLASKSKEEVSSLI SEKTNGATPLLMAARYGHLDMVEFLLEQCSASIEVGGSVN  
FDGETIEGAPPLWAASAAGHLKVVQSLLNHGASVNNTTLTNSTPLRAACFDGHLEIVKYLVEHKADLEVSNRHGH  
TCLMISCYKGHKEIAQYLLEKGADVNRKSVKGNTALHDCAESGSLDIMKMLLMYCAKMEKDGYGMTPLLSASVTG  
HTNIVDFLTHHAQTSKTERINALELLGATFVDKKRDLLGALKYWKKAMNMRYSDRTNII SKPVPQTLIMAYDYAK  
EVNSAELEGLIADPDEMRMQALLIRERILGPSHPDTSYYIRYRGAVYADSGNFKRCINLWKYALDMQQSNLDPL  
SPMTASSLLSFAELFSFMLQDRAKGLLGTTVTTFDDLMGILCKSVLEIERAIKQTQCPADPLQLNKALSIILHLIC  
LLEKVPCTLEQDHFKKQTIYRFLKLHPRGKNNFSPLHLAVDKNTTCVGRYPVCKFPSLQVTAILECGADVNV RD  
SDDNSPLHIAALNNHPDIMNLLIKSGAHFDATNLHKQTASDLLDEKEIAKNLIQPINHTTLQCLAARVIVNHRIY  
YKGHIPEKLETFVSLHR

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**FIGURE 335A**

CACGAGGCAGCACTCTCTTCGTCGCTTCGGCCAGTGTGTCTGGGCTGGGCCCTGACAAGCCACCTGAGGAGAGGCT  
CGGAGCCGGGCCCCGACCCCGGCGATTGCCGCCCGCTTCTCTCTAGTCTCACGAGGGGTTTCCCGCCTCGCACCC  
CCACCTCTGGACTTGCCTTTCCTTCTCTTCTCCGCGTGTGGAGGGAGCCAGCGCTTAGGCCGGAGCGAGCCTGGG  
GGCCGCCCCGCGTGAAGACATCGCGGGGACCGATTACCATGGAGGGCGCCGGCGGCGCGAACGACAAGAAAAAG  
ATAAGTTCTGAACGTGAAAAGAAAAGTCTCGAGATGCAGCCAGATCTCGGCGAAGTAAAGAATCTGAAGTTTTT  
TATGAGCTTGCTCATCAGTTGCCACTTCCACATAATGTGAGTTTCGCATCTTGATAAGGCCTCTGTGATGAGGCTT  
ACCATCAGCTATTTCGCTGTGAGGAACTTCTGGATGCTGGTGATTGGATATTGAAGATGACATGAAAGCACAG  
ATGAATTGCTTTTATTTGAAAGCCTTGGATGGTTTGTATGGTTCTCACAGATGATGGTGACATGATTTACATT  
TCTGATAATGTGAACAAATACATGGGATTAAGTCACTTGAAGTAACTGGACACAGTGTGTTTGATTTTACTCAT  
CCATGTGACCATGAGGAAATGAGAGAAATGCTTACACACAGAAATGGCCTTGTGAAAAAGGGTAAAGAACAAAAC  
ACACAGCGAAGCTTTTTTCTCAGAATGAAGTGACCTAACTAGCCGAGGAAGAACTATGAACATAAAGTCTGCA  
ACATGGAAGGTATTGCACTGCACAGGCCACATTACGTATATGATACCAACAGTAACCAACCTCAGTGTGGGTAT  
AAGAAACCACCTATGACCTGCTTGGTGCTGATTGTGAACCCATTCTCACCCATCAAATATTGAAATTCCTTTA  
GATAGCAAGACTTTCCTCAGTCGACACAGCCTGGATATGAAATTTTCTTATTGTGATGAAAGAATTACCGAATTG  
ATGGGATATGAGCCAGAAGAACTTTTAGGCCGCTCAATTTATGAATATTATCATGCTTTGGACTCTGATCATCTG  
ACCAAACTCATCATGATATGTTTACTAAAGGACAAGTCACCACAGGACAGTACAGGATGCTTGCCAAAAGAGGT  
GGATATGTCTGGGTGAACTCAAGCAACTGTCATATATAACACCAAGAATTCTCAACCACAGTGCATTGTATGT  
GTGAATTACGTTGTGAGTGGTATTATTACGACGACTTGATTTTCTCCCTTCAACAAACAGAATGTGTCCTTAAA  
CCGTTTGAATCTTCAGATATGAAAATGACTCAGCTATTACCAAAAGTTGAATCAGAAGATACAAGTAGCCTCTTT  
GACAACTTAAGAAGGAACCTGATGCTTTAACTTTGCTGGCCCCAGCCGCTGGAGACACAATCATATCTTTAGAT  
TTTGGCAGCAACGACACAGAACTGATGACCAGCAACTTGAGGAAGTACCATTATATAATGATGTAATGCTCCCC  
TCACCCAACGAAAAATTACAGAATATAAATTTGGCAATGTCTCCATTACCCACCGCTGAAACGCCAAAGCCACTT  
CGAAGTAGTGCTGACCCGCACTCAATCAAGAAGTGCATTAAAATTAGAACCAATCCAGAGTCACTGGAACCTT  
TCTTTTACCATGCCCCAGATTACAGGATCAGACACCTAGTCCTTCCGATGGAAGCACTAGACAAAAGTTCACCTGAG  
CCTAATAGTCCAGTGAATATTGTTTTATGTGGATAGTGATATGGTCAATGAATTCAAGTTGGAATTGGTAGAA  
AACTTTTTGCTGAAGACACAGAAGCAAAGAACCATTCTTCTACTCAGGACACAGATTTAGACTTGGAGATGTTA  
GCTCCCTATATCCCAATGGATGATGACTTCCAGTTACGTTCCCTTCGATCAGTTGTCACCATTAGAAAGCAGTTCC  
GCAAGCCCTGAAAGCGCAAGTCTCAAAGCACAGTTACAGTATTCCAGCAGACTCAAATACAAGAACCTACTGCT  
AATGCCACCACTACCACTGCCACCACTGATGAATTAAGAACAGTGACAAAAGACCGTATGGAAGACATTAAATA  
TTGATTGCATCTCCATCTCCTACCCACATACATAAAGAACTACTAGTGCCACATCATCACCATATAGAGATACT  
CAAAGTCGGACAGCCTCACCAACAGAGCAGGAAAAGGAGTCATAGAACAGACAGAAAAATCTCATCCAAGAAGC  
CCTAACGTGTTATCTGTCGCTTTGAGTCAAAGAAC TACAGTTCCCTGAGGAAGAACTAAATCCAAAGATACTAGCT  
TTGCAGAAATGCTCAGAGAAAGCGAAAAATGGAACATGATGGTTCACTTTTTCAAGCAGTAGGAATTGGAACATTA  
TTACAGCAGCCAGACGATCATGCAGCTACTACATCACTTTCTTGAAACGTGTAAAAGGATGCAATCTAGTGAA  
CAGAATGGAATGGAGCAAAAGACAATTATTTAATACCCTCTGATTTAGCATGTAGACTGCTGGGGCAATCAATG  
GATGAAAGTGGATTACCACAGCTGACCAGTTATGATTGTGAAGTTAATGCTCCTATACAAGGCAGCAGAAACCTA  
CTGCAGGGTGAAGAATTACTCAGAGCTTTGGATCAAGTTAACTGAGCTTTTTCTTAATTTTCAATTCCTTTTTTGG  
ACACTGGTGGCTCACTACCTAAAGCAGTCTATTTATATTTTCTACATCTAATTTTAGAAGCCTGGCTACAATACT  
GCACAACTTGGTTAGTTCAATTTTTGATCCCCCTTCTACTTAATTTACATTAATGCTCTTTTTTAGTATGTTCT  
TTAATGCTGGATCACAGACAGCTCATTCTCAGTTTTTGGTATTTAAACCATTGCATTGCAGTAGCATCATTT  
TAAAAATGCACCTTTTTATTTATTTATTTTGGCTAGGGAGTTTATCCCTTTTTTCGAATTATTTTAAAGAAGAT  
GCCAATATAATTTTTGTAAAGGAGCAGTAACCTTTCATCATGATCATAGGCAGTTGAAAAATTTTACACCTTTT  
TTTTACATTTTACATAAATAATAATGCTTTGCCAGCAGTACGTGGTAGCCACAATTGCACAATATATTTCTTA  
AAAAATACCAGCAGTTACTCATGGAATATATCTGCGTTTATAAACTAGTTTTTAAGAAGAAATTTTTTTGGC  
CTATGAAATTGTTAAACCTGGAACATGACATTGTTAATCATATAATAATGATTCTTAAATGCTGTATGGTTTATT  
ATTTAAATGGGTAAAGCCATTTACATAATATAGAAAGATATGCATATATCTAGAAGGTATGTGGCATTATTTGG  
ATAAAATTCICAATTCAGAGAAATCATCTGATGTTTCTATAGTCACTTTGCCAGCTCAAAGAAAACAATACCCT  
ATGTAGTTGTGGAAGTTTATGCTAATATTGTGTAAGTATTAACCTAAATGTTCTGCCTACCCTGTTGGTAT



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**FIGURE 335B**

AAAGATATTTTGAGCAGACTGTAAACAAGAAAAAAAAAATCATGCATTCTTAGCAAAATTGCCTAGTATGTTAAT  
TTGCTCAAAATACAATGTTTGATTTTATGCACCTTTGTCGCTATTAAACATCCTTTTTTTCATGTAGATTTCAATAA  
TTGAGTAATTTTAGAAGCATTATTTTAGGAATATATAGTTGTCACAGTAAATATCTTGTTTTTCTATGTACATT  
GTACAAATTTTTCATTCTTTTGCTCTTTGTGGTTGGATCTAACACTAACTGTATTGTTTGTACATCAAATAA  
ACATCTTCTGTGGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 336**

MEGAGGANDKKKISSERRKEKSRDAARSRRSKESEVFYELAHQLPLPHNVSSHLDKASVMRLTISYLVRKLLDA  
GDLIEDDMKAQMNC FYLKALDGFVMVLTDDGDMIYISDNVNKYMGLTQFELTGHSVDFDTHPCDHEEMREMLTH  
RNGLVKKGKEQNTQRSFFLRMKCTLT SRGRTMNIKSATWKVLHCTGHIHVYDTNSNQPCGYKKPPMTCLVLICE  
PIPHPSNIEIPLDSKTFLSRHSLDMKFSYCDERITELMGYEPEELLGRSIYEYYHALDSHDLTKTHHDMFTKGQV  
TTGQYRMLAKRGGYVWVETQATVIYNTKNSQPQCI VCVNYVVSGIIQHDLIFSLQQTECVLKPVESSDMKMTQLF  
TKVESED TSSSLFDKLLKEPDALTLLAPAAGDTIISLDFGSNDTETDDQQLEEVPLYNDVMLPSPNEKLQNINLAM  
SPLPTAETPKPLRSSADPALNQEVALKLEPNPESLELSFTMPQIQDQTPSPSDGSTRQSSPEPNPSEYCFYVDS  
DMVNEFKLELVEKLFAEDTEAKNPFSTQD TDLDLEMLAPYIPMDDDFQLRSFDQLSPLESSSASPESASPQSTVT  
VFQQTQIQEPTANATTTTATTDDELKTVTKDRMEDIKILIASPSPTHIHKETTSATSSPYRDTQSRTASPNRAGKG  
VIEQTEKSHPRSPNVLSVALSQRTTVPEEELNPKILALQNAQRKRKMEHDGSLFQAVGIGTLLQQPDDHAATTSL  
SWKRVKGCKSSEQNGMEQKTIILIPSDLACRLLGQSMDESGLPQLTSYDCEVNAPIQGSRNLLQGEELLRALDQV  
N

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**FIGURE 337**

GCGGCGGGCGGCAGC**ATG**TCGGTGGCGGGGCTGAAGAAGCAGTTCTACAAGGCGAGCCAGCTGGTCAGTGAGAAG  
GTCGGAGGGGCCGAGGGGACCAAGCTGGATGATGACTTCAAAGAGATGGAGAAGAAGGTGGATGTCACCAGCAAG  
GCGGTGACAGAAGTGCTGGCCAGGACCATCGAGTACCTGCAGCCCAACCCAGCCTCGCGGGCTAAGCTGACCATG  
CTCAACACGGTGTC**CAAG**ATCCGGGGCCAGGTGAAGAACCCCGGCTACCCGCAGTCGGAGGGGCTTCTGGGCGAG  
TGCATGATCCGCCACGGGAAGGAGCTGGGCGGCGAGTCCAAC**TT**TGGTGACGCATTGCTGGATGCCGGCGAGTCC  
ATGAAGCGCCTGGCAGAGGTGAAGGACTCCCTGGACATCGAGGTCAAGCAGAACTTCATTGACCCCTCCAGAAC  
CTGTGCGAGAAAGACCTGAAGGAGATCCAGCACCACTGAAGAACTGGAGGGCCGCCGCTGGACTTTGACTAC  
AAGAAGAAGCGGCAGGGCAAGATCCCCGATGAGGAGCTACGCCAGGCGCTGGAGAAGTTCGAGGAGTCCAAGGAG  
GTGGCAGAAACCAGCATGCACAACCTCCTGGAGACTGACATCGAGCAGGTGAGTCAGCTCTCGGCCCTGGTGGAT  
GCACAGCTGGACTACCACCGGCAGGCCGTGCAGATCCTGGACGAGCTGGCGGAGAAGCTCAAGCGCAGGATGCGG  
GAAGCTTCCTCACGCCCTAAGCGGGAGTATAAGCCCAAGCCCCGGGAGCCCTTTGACCTTGAGAGCCTGAGCAG  
TCCAACGGGGGCTTCCCTGCACCACAGCCCCAAGATCGCAGCTTCATCGTCTTTCCGATCTTCCGACAAGCCC  
ATCCGGACCCCTAGCCGGAGCATGCCGCCCTGGACCAGCCGAGCTGCAAGGCGCTGTACGACTTCGAGCCCGAG  
AACGACGGGGAGCTGGGCTTCCATGAGGGCGACGTATCACGCTGACCAACCAGATCGATGAGAACTGGTACGAG  
GGCATGCTGGACGGCCAGTCGGGCTTCTTCCCGCTCAGCTACGTGGAGGTGCTTGTGCCCCCTGCCGCAG**TG**ACTC  
ACCCGTGTCCCCGCCCGCCCCCTCCGTCCACACTGGCCGGCACCCCTTGCTGGGTCTCCTGCATTCCACGGAGCC  
CCTGCTGCCAGGGCGGTGTCTGAGCCTGCCGGCGCCACCTGGGCCCCGGCCCTTGAGGTACTCCCTGAGCAGGAC  
CCCACACTTGGGTGGGGGGGCTTATCTGGGTGGGTGGGGATGCCTGTTTACACTAGCGCTGACTCCCAACGGTGA  
CGGCTCCCTTCCCCACTCCATGGCGCCAGCCTCCTCCCCCGCTCCCCAACTTCTCGCCCAGCTGGCCGAGGCGGG  
GCAACACTAAGGTGCTCTTAGAAACACTAATGTTCTCTGGGGCAGCCCCACCTCCGTCTGACCCGACGGGGG  
CCCGGCCCACTGCCTACCCCTCGAGTCCCGCAGCCTTAACAGGATGGGATCGAGGGTCCCCATGGGGTGGCTCAGA  
GATAGGACCCTGGTTTTAAATCCCTCCCAGCCTGGTGCTGGTGATGGGCCCTGGCCCTACTCCAGGGCCAATGCA  
CCCCCGCCTCACACACGCACTCCTTCTCCTCAAGGCCAGGGCAGAGGGCCTCACCGCCTCCCGGGCCTGCTGTCA  
GCTTGCAGCCCCGGGACAGAGGCCAGCTGGGATCTGCCTGAGGACAGAGAACATGGTCTCCTGCAGGGCCCTGCC  
TCCCAAGCCCCGCCCTCAGAAAGCCAAGTACCTTTTCAGCTTTTTTAAGTGGCCCCATCCCAACCCAGGGAGGCCT  
GTGTCACTCTGGCACAAGCTGCCACCACCAGCCACCCACCCACCCAGCACACCTCACACGGGACCACAGCCG  
CGCTGCCGAGGGCCAAGCACAAAGTTCCAGTGAGCGCATGTCCAGCCCTGGTGGCCAGGCTCCCTTGCTGAG  
CCGCTGCCACTTCACCCCTGTGGGAAGTGGCCCCAGCCATCTCCTCTAGACCAAGGCAGGCAGCCCCGACATCTGC  
TTCTCTATCGCCCAATGCAAAATCGATGAAATGGGGAGTTCTCTGGGCCAGGCCACATTACATTCCCTCCCT  
CTGTGGTCCAGTGAAGCTCCGGACCCAGGCTCTGCTCTGCCCTGCCCTGCACCCCCCTCGTCAGAAGTACATGA  
GGGGCGCAGAGATGAGCACACAGCTTTGGGCACGGTCCAGGGCAA**ACT**GAAATGTACGCCTGAATTTTGTAACA  
GAAGTATTAAATGTCTCTTTCTAC

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**FIGURE 338**

MSVAGLKKQFYKASQLVSEKVGGAEGTKLDDDFKEMEKKVDVTSKAVTEVLARTIEYLPNPASRAKLTMLNTVS  
KIRGQVKNPGYPQSEGLLGECMIRHGKELGGESNFGDALLDAGESMKRLAEVKDSL DIEVKQNFIDPLQNLCEKD  
LKEIQHHLKKLEGRRLDFDYKKKRQGKIPDEELRQALEKFEEESKEVAETSMHNLLET DIEQVSQLSALVDAQLDY  
HRQAVQILDELAEKLRMRREASSREPKREYKPKPREPFDLGEPEQSNGGFPCTTAPKIAASSSFRSSDKPIRTPS  
RSMPPLDQPSCKALYDFEPENDGELGFHEGDVITLTNQIDENWYEGMLDGQSGFFPLSYVEVLVPLPQ

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GGCGCTGGGGCGGCTGCGGCGCGCGGTGCGCGGTGCGTAGTCTGGAGCT**ATG**TGGTGGTGGCAGCCGCGCCGAAC  
CCGGCCGACGGGACCCCTAAAGTTCTGCTTCTGTCTGGGGCAGCCCGCTCCGCCGCCGGAGCCCCGGCCGGCCAG  
GCCCTGCCGCTCATGGTGCCAGCCAGAGAGGGGGCCAGCCCGGAGGCAGCGAGCGGGGGGCTGCCCCAGGCGCGC  
AAGCGACAGCGCCTCACGCACCTGAGCCCCGAGGAGAAGGCGCTGAGGAGGAAACTGAAAAACAGAGTAGCAGCT  
CAGACTGCCAGAGATCGAAAAGAAGGCTCGAATGAGTGAGCTGGAAACAGCAAAGTGGTAGATTTAGAAGAAGAGAAC  
CAAAAACTTTTGCTAGAAAAATCAGCTTTTACGAGAGAAAACTCATGGCCTTGTAGTTGAGAACCAGGAGTTAAGA  
CAGCGCTTGGGGATGGATGCCCTGGTTGCTGAAGAGGAGGCGGAAGCCAAGGGGAATGAAGTGAGGCCAGTGGCC  
GGGTCTGCTGAGTCCGCGAGCACTCAGACTACGTGCACCTCTGCAGCAGGTGCAGGCCCAGTTGTCACCCCTCCAG  
AACATCTCCCCATGGATTCTGGCGGTATTGACTCTTCAGATTCAGAGTCTGATATCCTGTTGGGCATTCTGGACA  
ACTTGGAACCCAGTCATGTTCTTCAAATGCCCTTCCCCAGAGCCTGCCAGCCTGGAGGAGCTCCCAGAGGTCTACC  
CAGAAGGACCCAGTTCCCTTACCAGCCTCCCTTTCTCTGTCACTGGGGACGTCATCAGCCAAGCTGGAAGCCATTA  
ATGAAC**TAA**TTTCGTTTTGACCACATATATACCAAGCCCCCTAGTCTTAGAGATAACCTCTGAGACAGAGAGCCAAG  
CTAATGTGGTAGTGAAAAATCGAGGAAGCACCTCTCAGCCCCCTCAGAGAATGATCACCCTGAATTCATTGTCTCAG  
TGAAGGAAGAACCCTGTAGAAGATGACCTCGTTCCGGAGCTGGGTATCTCAAATCTGCTTTTCATCCAGCCACTGCC  
CAAAGCCATCTTCTGCTACTGGATGCTTACAGTGACTGTGGATACGGGGGGTTCCCTTTCCCCATTCACTGACA  
TGTCCTCTCTGCTTGGTGTAACCATTCTTGGGAGGACACTTTTGCCAATGAACTCTTTCCCCAGCTGATTAGTG  
CTAAGGAATGATCCAATACTGTTGCCCTTTTCTTGACTATTACACTGCCTGGAGGATAGCAGAGAAGCCTGTG  
TGTACTTCATTCAAAAAAGCCAAAAATAGAGAGTATACAGTCTTAGAGAATTCTCTATTGTTTCAGATCTCATAGA  
TGACCCCCAGGTATTGTCTTTTGACATCCAGCAGTCCAAGGTATTGAGACATATTACTGGAAGTAAGAAAAATTA  
CTATAATTGAGAACTACAGCTTTTAAAGATTGTACTTTTATCTTAAAAAGGGTGGTAGTTTTCCCTAAAAATACTTAT  
TATGTAAGGGTCATTAGACAAATGTCTTGAAGTAGACATGGAATTTATGAATGGTTCTTTATCATTCTCTTCCC  
CTTTTTGGCATCCTGGCTTGCCCTCCAGTTTTAGGTCCTTTAGTTTGCTTCTGTAAAGCAACGGGAACACCTGCTG  
AGGGGGCTCTTTCCCTCATGTATACTTCAAGTAAGATCAAGAATCTTTTGTGAAATTATAGAAATTTACTATGTA  
AATGCTTGATGGAATTTTTTCTGCTAGTGAGCTTCTGAAAGTGCTTTCTCCATTATTTAAAACTACCCATG  
CAATTAAGGTACAATGCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 340**

MVVVAAAPNPADGTPKVLLLSGQPASAAGAPAGQALPLMVPAQRGASPEAASGGLPQARKRQRLTHLSPEEKALR  
RKLKNRVAAQTARDRKKARMSELEQQVVDLEENQKLLLENQLLREKTHGLVVENQELRQRLGMDALVAEEEEAEA  
KGNEVRPVAGSAESAALRLRAPLQQVQAQLSPLQNI SPWILAVLTLQIQSLISCWAFWTTWTQSCSSNALPQSLP  
AWRSSQRSTQKDPVPYQPPFLCQWGRHQPSWKPLMN

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**FIGURE 341**

GGCACGAGGGAGAAAGGAGAGAAAGGAAAGCGCGAGGAGCCGCCACCACCAGCGCAGCAGTCCTGGAGCTGT  
GAGGAGATTTCGGGCCGTCAACCTGCCTCCCCTGCGTCCCGCCACCGGCCGCTTCTGTCTCGGACCCATTCCAAC  
AATCTCGTAAACATGGTGGATTACTATGAAGTTCTAGGCGTGCAGAGACATGCCTCACCCGAGGATATTAAAA  
GGCATATCGGAAACTGGCACTGAAGTGGCATCCAGATAAAAAATCCTGAGAATAAAGAAGAAGCAGAGAGAAAATT  
CAAGCAAGTAGCGGAGGCATATGAAGTGTCTGCGGATGCTAAGAAACGGGACATCTATGACAAATATGGCAAAGA  
AGGATTAAATGGTGGAGGAGGAGGTGGAAGTCATTTTGACAGTCCATTTGAATTTGGCTTCACATTCCGTAACCC  
AGATGATGTCTTCAGGGAATTTTTTGGTGGAAAGGGACCCATTTTTCATTTGACTTCTTTGAAGACCCTTTTGAGGA  
CTTCTTTGGGAATCGAAGGGGTCCCCGAGGAAGCAGAAGCCGAGGGACGGGGTCGTTTTTCTCTGCGTTCAGTGG  
ATTTCCGTCTTTTGAAGTGGATTTTCTCTTTTGATACAGGATTTACTTCATTTGGGTCACTAGGTACAGGGGG  
CCTCACTTCATTCTCTTCCACGTCAATTTGGTGGTAGTGGCATGGGCAACTTCAAATCGATATCAACTTCAACTAA  
AATGGTTAATGGCAGAAAAATCACTACAAAGAGAATTGTGCGAGAACGGTCAAGAAAGAGTAGAAGTTGAAGAAGA  
TGGCCAGTTAAAGTCCTTAACAATAAATGGTGTGGCCGACGACGATGCCCTCGCTGAGGAGCGCATGCGGAGAGG  
CCAGAACGCCCTGCCAGCCAGCCTGCCGGCCTCCGCCCGCCGAAGCCGCCCGGCCCTGCCTCGCTGCTGAGACA  
CGCGCCTCACTGTCTCTCTGAGGAGGAGGGCGAGCAGGACCGACCTCGGGCACCCGGGCCCTGGGACCCCTCGC  
GTCCGCAGCAGGATTGAAAGAAGGTGGCAAGAGGAAGAAGCAGAAGCAGAGAGAGGAGTGAAGAAGAAGAAGTC  
GACCAAAGGCAATCACTAGACCGGACTTGAGGCACGCGGTGCACCCCGACGCTGGCGCTCCACCGTGTCTCGGC  
ATGCGGTCTGTGCACACGCGCTAGGTAGCAGCGTGGTTCAGGACTGTCTCGAGGCCACACTCGCTCGGCAGGATTA  
TGCGATCACGGATCAGTCAGAGCAGGGTCAGGAGACGGGGCTGACGGCACGGGTGGCGGGACAGACGTTTGGGA  
CTTGGCCGCGACTCTCTGCTTCTCTCCAGCTCTCAATCTGCTGCATTTTCTCTAGTGCTTCCGGATCCTCTTCA  
TTCTTTTCGGCTACTCAACCACTCCGCATGCTGCTGGAATATTTCTGGCTTTAGAAGTACAGGAGGGCGCAGATG  
GCTAACTGAGTAACATTTCATGAAATGAGGCTTTCTGTGGCGGCGTAGTGTTTGAATTAGAAGGTAATTCAGTAG  
AGTGTAACCTTAGAGAATATTGCAAGTGACACATTGAATCCTGCCCGTCAGGGCACCTTTTCTCAGAGCAATCCG  
GCCACACGAATAGAAGGCTGTGCTGAATCACATCAGATGTAAATCATTCTTCTGTTTACTCTTTTAATTTTCA  
TCCTTTGCAGGTAGTGCAAATTCAACTTCAAATATGGTGTAGGTTTTGCTAGATTCCATATTTTTTTCTTGGAAT  
TTTGCTAATTATTTTTAGCAAAAAATTTTTGCTCAGTGGCACCCCTCCCTAGTGTCCATGGGTTAGGGCCATGCTG  
GGGAAAACGGGCCCGGTATTTACACACGCGCAAAACACCCAGAGACGGCACAAGGAGGTTGAACATGTTTCAGT  
TCGCGAACATTGACTCCTTACGAAAGTCACTTCATTCTAAGTAGATGCGCCACTTCCGGTCATTATTCGTTTG  
CATGATGTATTGCTTCTTACGTTTTGTTTTATTGAGCACGGAGTAGAATTCCAGGGCTGCCTTGACTTCTTCC  
CTGCAATGCTCCCTCCAGTGACTTTCTTCCCTTTTACATGAGGATCTGCCGTTTATGTTGCTTCTCCTTTGTC  
CTCTTGGACTTGAGGGCATTGTGAAAAGCTTTGCTGTGATTTAAAAATGCCAGCAATTTAATCTAGCAGTGTG  
AAGCTGGGAATTTTTTGGCGCAATCCATGTAGCAGTGACCCAGGCTTGGGAGCCAGAAACAAGTGTGACCTGGGA  
TTTTATTTAACACAACCTGTTGCCAAAGAGTTGGCTTTGTTTATTTGGTTTTGGCGGGGAGAGGAGTGGTATTTGA  
TGCTTTCTGTGGACAATGTAACCCCTAAACACATCATGTATTTTAAATGCCACCTACATAAATAAAACATAAGCAT  
ATTGAATACAAAAA

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**FIGURE 342**

MVDYYEVLGVQRHASPEDIKKAYRKLALKWHPDKNPENKEEAERKFQVAEAYEVLSDAKKRDIYDKYGKEGLNG  
GGGGGSHFDSPFEGFTFRNPDDVFREFFGGRDPSFDFFEDPFEDFFGNRRGPRGSRSGTGSFFSAFSGFPSPF  
GSGFSSFDTGFTSFGSLGHGGLTSFSSTSFGGSGMGNFKSISTSTKMNVRKITTKRIVENGQERVEVEEDGQLK  
SLTINGVADDDALAEERMRRGQNALPAQPAGLRPPKPPRPASLLRHAPHCLSEEEGEQDRPRAPGPWDPLASAAG  
LKEGGKRKKQKQREESKSKKSTKGNH



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**FIGURE 343**

GGATCGAGGGGACTCTGACCACAGCCTGTGGCTGGGGAAGGGAGACAGAGGCGGCGGGCTCAGGGGAAACGAGG  
CTGCAGTGGTGGTAGTAGGAAGATGTCGGGCGAGGACGAGCAACAGGAGCAAACCTATCGCTGAGGACCTGGTCGT  
GACCAAGTATAAGATGGGGGGCGACATCGCCAACAGGGTACTTCGGTCCTTGGTGGAAGCATCTAGCTCAGGTGT  
GTCGGTACTCAGCCTGTGTGAGAAAGGTGATGCCATGATTATGGAAGAAACAGGGAAAATCTTCAAGAAAGAAAA  
GGAAATGAAGAAAGGTATTGCTTTTTCCACCAGCAATTCGGTAAATAACTGTGTATGTCACTTCTCCCTTTGAA  
GAGCGACCAGGATTATATTCTCAAGGAAGGTGACTTGGTAAAAATTGACCTTGGGGTCCATGTGGATGGCTTCAT  
CGCTAATGTAGCTCACACTTTTGTGGTTGATGTAGCTCAGGGGACCCAAGTAACAGGGAGGAAAGCAGATGTTAT  
TAAGGCAGCTCACCTTTGTGCTGAAGCTGCCCTACGCTGGTCAAACCTGGAAATCAGAACACACAAGTGACAGA  
AGCCTGGAACAAAGTTGCCCCTCATTAACTGCACGCCAATAGAAGGTATGCTGTACACCAGTTGAAGCAGCA  
TGTCATCGATGGAGAAAAAACCATTTATCCAGAATCCACAGACCAGCAGAAGAAGGACCATGAAAAAGCTGAATT  
TGAGGTACATGAAGTATATGCTGTGGATGTTCTCGTCAGCTCAGGAGAGGGCAAGGCCAAGGATGCAGGACAGAG  
AACCCTATTTACAAACGAGACCCCTCTAAACAGTATGGACTGAAAATGAAAACCTCACGTGCCTTCTTCAGTGA  
GGTGGAAAGGCGTTTTGATGCCATGCCGTTTACTTTAAGAGCATTTGAAGATGAGAAGAAGGCTCGGATGGGTGT  
GGTGGAGTGCGCCAAACATGAACTGCTGCAACCATTTAATGTTCTCTATGAGAAGGAGGGTGAATTTGTTGCCCA  
GTTTAAATTTACAGTTCTGCTCATGCCCAATGGCCCCATGCGGATAACCAGTGGTCCCTTCGAGCCTGACCTCTA  
CAAGTCTGAGATGGAGGTCCAGGATGCAGAGCTAAAGGCCCTCCTCCAGAGTTCTGCAAGTCGAAAAACCCAGAA  
AAAGAAAAAAGAAAGGCCTCCAAGACTGCAGAGAATCCCACCAGTGGGGAAACATTAGAAGAAAATGAAGCTGG  
GGACTGAGGTGCGTCCCATCTCCCCAGCTTGCTGCTCCTGCCTCATCCCCTTCCCACCAAACCCAGACTCTGTG  
AAGTGCAGTTCTTCTCCACCTAGGACCGCCAGCAGAGCGGGGGGATCTCCCTGCCCCACCCAGTTCCCCAACC  
CACTCCCTTCCAACAACAACCAGCTCCAACCTGACTCTGGTCTTGGGAGGTGAGGCTTCCCAACACGGAAGACTA  
CTTTAAACGAAAAAAGAAATTGAATAATAAAATCAGGAGTCAAAATTCATCGTCTTCAAGGCCCTCTTTCTAG  
CCTTTTCTACTACTCTCTGCTTGGTCAAGGTTTGTGCCCCACTACAGAACAGGGCTAAATTAGCCACCACCACTG  
AAAACCTCAGCCGAATTTTTTTATACCACTCTGACGTCAGCATTTTTT

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**FIGURE 344**

MSGEDQQEQTIAEDLVVTKYKMGGDIANRVLRLVEASSSGVSVLSLCEKGDAMIMEETGKIFKKEKEMKKGIA  
FPTSISVNNVCVCHFSPKSDQDYILKEGDLVKIDLGHVVDGFIANVAHTFVVDVAQGTQVTGRKADVIKAAHLCA  
EAALRLVKPGNQNTQVTEAWNKAHSFNCTPIEGMLSHQLKQHVIDGEKTI IQNPTDQQKKDHEKAEFEVHEVYA  
VDVLVSSGEGKAKDAGQRTTIYKRDP SKQYGLKMKTSRAFFSEVERRFDAMPFTLRAFEDKKARMGVVECAKHE  
LLQPFNVLYEKEGEFVAQFKFTVLLMPNGPMRITSGPFEPDLYKSEMEVQDAELKALLQSSASRKTQKKKKKKAS  
KTAENPTSGETLEENEAGD

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**FIGURE 345**

ACGAGACGAAGACGGAACCGGAGCCGGTTGCGGGCAGTGGACGCGGTTCTGCCGAGAGCCGAAGATGCGCAGTGAA  
CGTATACTCAACGTCAGTGACCAGTGATAACCTAAGTCGACATGACATGCTGGCCTGGATCAATGAGTCTCTGCA  
GTTGAATCTGACAAAAGATCGAACAGTTGTGCTCAGGGGCTGCGTATTGTCAGTTTATGGACATGCTGTTCCCTGG  
CTCCATTGCCCTTGAAGAAAGTGAAATTCCAAGCTAAGCTAGAACACGAGTACATCCAGAACTTCAAAATACTACA  
AGCAGGTTTTAAGAGAATGGGTGTTGACAAAATAATTCTGTGGACAAATTAGTAAAAGGAAAGTTTCAGGACAA  
TTTTGAATTCGTTTCAGTGGTTCAAGAAGTTTTTCGATGCAAACTATGATGGAAGAAAGACTATGACCCTGTGGCTGC  
CAGACAAGGTCAAGAAAGTGCAGTGGCTCCTTCCCTTGTGTGCTCCAGCTCTGAATAAACCGAAGAAACCTCTCAC  
TTCTAGCAGTGCAGTCCCCAGAGGCCATCTCAACACAGAGAACCGCTGCGGCTCCTAAGGCTGGCCCTGGTGT  
GGTGCGAAAGAACCCTGGTGTGGGCAACGGAGACGACGAGGCAGCTGAGTTGATGCAGCAGGTCAACGTATTGAA  
ACTTACTGTTGAAGACTTGGAGAAAGAGAGGGATTCTACTTCGGAAAGCTACGGAACATTGAATTGATTGGCA  
GGAGAACGAGGGGGGAAAACGACCCTGTATTGCAGAGGATTGTAGACATTCTGTATGCCACAGATGAAGGCTTTGT  
GATACCTGATGAAGGGGGGCCACAGGAGGAGCAAGAAGAGTATTAAACAGCCTGGACCAGCAGAGCAACATCGGAA  
TTCTTCACTCCAAATCATGTGCTTAACTGTAAATACTCCCTTTTGTATCCTTAGAGGACTCACTGGTTTCTTT  
TCATAAGCAAAAAGTACCTCTTCTTAAAGTGCACCTTTGCAGACGTTTCACTCCTTTTCCAATAAGTTTGAGTTAG  
GAGCTTTTACCTTGTAGCAGAGCAGTATTAACATCTAGTTGGTTCACTGGAAAACAGAGAGGCTGACCGTGGGG  
CTCACCATGCGGATGCGGGTCACACTGAATGCTGGAGAGATGTATGTAATATGCTGAGGTGGCGACCTCAGTGGA  
GAAATGTAAAGACTGAATTGAATTTTAAGCTAATGTGAAATCAGAGAATGTTGTAATAAGTAAATGCCTTAAGAG  
TATTTAAATATGCTTCCACATTTCAAAATATAAAATGTAAATGACAAGAGATTTTGCCTTTGACATTGTGTCT  
GGGAAGGAAGGGCCAGACCTTGGAAACCTTTGGAACCTGCTGTCAACAGGTCTTACAGGGCTGCTTGAACCCTCAT  
AGGCCTAGGCTTTGGTCTAAAAGGAACATTTAAAAAGTTGCCCTGTAAAGTTATTTGGTGTCAATTGACCAATTGC  
ATCCCAGCTAAAAAGCAAGAGGCATCGTTGCCTGGATAATAGAGGATGTGTTTCAGCCCTGAGATGTTACAGTTG  
AAGAGCTTGGTTTCATTGAGCATTCTCTATTTTTCCAGTTATCCCGAAATTTCTATGTATTATTTTTTGGGGAA  
GTGAGGTGTGCCAGTTTTTTAATCTAACAACCTACTTTTGGGGACTTGCCACATCTCTGGGATTTGAATGGGGA  
TTGTATCCCATTTTACTGTCTTTTAGGTTTACATTTACCACGTTTCTCTCTCTGCTCCCTTGCCCACTGGGAC  
TCCTCTTTGGCTCCTTGAAGTTTGCTGCTTAGAGTTGGAAGTGCAGCAGGCAGGTGATCATGCTGCAAGTTCTTT  
CTGGACCTCTGGCAAAGGGAGTGGTCAGTGAAGGCCATCGTTACCTTGGGATCTGCCAGGCTGGGGTGTTCGG  
TATCTGCTGTTACAGCTCTCCACTGTAATCCGAATACTTTGCCAGTGCCTAATCTCTTTGGAGATAAAATTCA  
TTAGTGTGTTACTAAATGTTAATTTTCTTTTGGGAAAATACAGTACCGTGTCTGAATTAATTATTAATATTTAA  
AATACTTCATTCCCTTAACTCTCCCTCATTGCTTTGCCACAGCCTATTCAGTTCCTTTGTTTGGCAGGATTCTG  
CAAAATGTGTCTCACCCACTACTGAGATTGTTTCAGCCCCTGATGTATTGTATTGATTGTTTCTGGTGGTAGCT  
TGTCCTGAAATGTGTGTAGAAAGCAAGTATTTTATGATAAAAATGTTGTGTAGTGCATGCTCTGTGTGGAATTCA  
GAGGAAAACCCAGATTCAGTGATTAACAATGCCAAAAATGCAAGTAACTAGCCATTGTTCAAATGACAGTGGTG  
CTATTTCTCTTTTGTGGCCTTTTAGACTTTTGTGCCCATAAAATCCATTTTATTGGGAACCCATTTTCCACCTG  
GTCTTTCTTGACAGGGTTTTTTTCTACTTTAAACAGTTTCTAAATAAAATCTGTATTTCAAAA

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**FIGURE 346**

MAVNVYSTSVTSDNLSRHDMLAWINESLQLNLTKIEQLCSGAAYCQFMDMLFPGSIALKKVKFQAKLEHEYIQNF  
KILQAGFKRMGVDKIIPVDKLVKGKFQDNFEFVQWFKKFFDANYDGKDYDPVAARQQQETAVAPSLVAPALNKPK  
KPLTSSSAAPQRP ISTQRTAAAPKAGPGVVRKNPGVGNNGDDEAAELMQQVNVLKLTVEDLEKERDFYFGKLRNIE  
LICQENEGENDPVLQRIVDILYATDEGFVIPDEGGPQEEQEY

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**FIGURE 347**

CGGAACGTGGTTGGGGAGGGGGGGGTGGGGGGGACTCTAGACAGCTGAGGCGCGAAAGCATGAGTCCTCGGCTCT  
TCCTCCTCCTTCTCCGGGACCCGCTCTCTGCCTCCCTCTCCAACGCCCGGATGATCTGAGCCGCGAGGGCGCCGA  
CAGCCGGGGGCCCCGGACGCAGCCCGGCTCCTCCCCCTCCTCCGCCCTTCCCCAGCCTGACCTGGCCCCGCCGCTGC  
AGCGGTGACCCCTCCCCCGGCTGCCGCCGTCGCCGCCGCGGTGACCCCTCCCCGGCTGCCGCCGCCGCCGCTC  
GGCCGACCAGGGACCTGCCCGCTGCGGCTGCTCCGGACCTAGAGGATCAAGACATAATGGGAGCATTTTTAGAC  
AAGCCAAAGATGGAAGAGCATAATGCCAGGGGAGGGTAATGGGTTGCGATATGGGCTAAGCAGCATGCAAGGC  
TGGCGTGTGAAATGGAGGATGCACATACGGCTGTGATCGGTTTGCCAAGTGGACTTGAATCGTGGTCATTCTTT  
GCTGTGTATGATGGGCATGCTGTTCTCAGGTTGCCAAATACTGCTGTGAGCATTGTGTTAGATCACATCACCAAT  
AACCAGGATTTTAAAGGGTCTGCAGGAGCACCTTCTGTGGAAGATGTAAGAATGGAATCAGAACAGGTTTCTG  
GAGATTGATGAACACATGAGAGTTATGTCAGAGAAGAAACATGGTGAGATAGAAGTGGGTCAACAGCTGTAGGT  
GTCTTAATTTCTCCCCAACATACTTATTTTCTTAATGTTGGAGACTCAAGAGGTTTACTTTGTAGGAACAGGAAA  
GTTCAATTTCTTACACAAGATCACAACCAAGTAATCCGCTGGAGAAAGAACGAATTCAGAATGCAGGTGGCTCT  
GTAATGATTTCAGCGTGTGAATGGCTCTCTGGCTGTATCGAGGGCCCTTGGGGATTTTGATTACAAATGTGTCCAT  
GGAAAAGGTCTTACTGAGCAGCTTGTCTCACCAGAGCCTGAAGTCCATGATATTGAAAGATCTGAAGAAGATGAT  
CAGTTCATTATCCTTGCATGTGATGGTATCTGGGATGTTATGGGAAATGAAGAGCTCTGTGATTTTGTAAAGATCC  
AGACTTGAAGTCACTGATGACCTTGAGAAAGTTTGCAATGAAGTAGTCGACACCTGTTTGTATAAGGGAAGTCGA  
GACAACATGAGTGTGATTTTGTCTGTTTCCAAATGCACCCAAAGTATCGCCAGAAGCAGTGAAGAAGGAGGCA  
GAGTTGGACAAGTACCTGGAATGCAGAGTAGAAGAAATCATAAAGAAGCAGGGGGAAGGCGTCCCCGACTTAGTC  
CATGTGATGCGCACATTAGCGAGTGAGAACATCCCCAGCCTCCCACCAGGGGGTGAATTGGCAAGCAAGAGGAAT  
GTTATTGAAGCCGTTTACAATAGACTGAATCCTTACAAAAATGACGACACTGACTCTACATCAACAGATGATATG  
TGGTAAACTGCTCATCTAGCCATGGAGTTTACCTTCACCTCCAAAGGAGAGTACAGCTCAACTTTGTTGAAACT  
TTTAACATCCATCCTCAACTTTAAGGAAGGGGATATGACATGGGTGAGAATGATTACATCAGAGAACTTCAGCAG  
TACAACAGCTAGCCCAGAACTGATTTTTTTTTTTTTTTTTTTTGTAAATTTGAGACTTATGTAAGCGTGATTTC  
AACCATAATTTCGTGTTGTAAATCAGACTCCAGCAATTTTGTGTTGATGATTTGTTTTTTTGTAAAGTGTAATTG  
TCCTTGTACAAATGCTCATATTTAATTATGAACTGCTTTAAATCACTATCAAAGTTACAAGAAATGTTTGGCTT  
ATTGTGTGATGCAACAGATATATAGCCCTTTCAAGTCATGTTGTGTTTGGACTTGGGGTTGGAACAGGGAGAGCA  
GCAGCCATGTCAGCTACACGCTCAAATGTGCAGATGATTATGGAATAACCTCAAATCTTACAAAGCTGAACA  
TCCAAGGAGTTATTGAAACTATCTTAAATGTTCTTGGTAGGGGAGTTGGCATTGTTGATAAAGCCAGTCCCTTC  
ATTTAACTGTCTTTTCCAGGATGTTCCCTTCGTTGTTTCCATGAGTATTGCAGGTAATAATACAGTGTGTTCCATAAG  
AATCTCAATCTTGGGGCTAAATGCCTTGTCTTTCACCTCTTTTCAAGTCCTTACATTTAATTACTAATTGAT  
AAGCAGCAGCTTCTACATATAGTAGGAACTGCCACATTTTGTCTATCATGATTGGCTGGGCCTGCTGCTGTT  
CTAGTAAGATATTCTGAATTC

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**FIGURE 348**

MGAFLDKPKMEKHNAQQGQGNGLRYGLSSMQGWRVEMEDAHTAVIGLPSGLESWSFFAVYDGHAGSQVAKYCCEHL  
LDHITNNQDFKGSAGAPSVENVKNGIRTGFLEIDEHMRVMSEKKHGADRSGSTAVGVLISPQHTYFINGDSRGL  
LCRNRKVHFFTQDHKPSNPLEKERIQNAGGSVMIQRVNGSLAVSRALGDFDYKCVHGKGPTQLVSPEPEVHDIE  
RSEEDDQFIILACDGIWDVMGNEELCDFVRSRLEVTDDEKVCNEVVDTCCLYKGSRDNMSVILICFPNAPKVSPE  
AVKKEAELDKYLECRVEEIIKKQEGVDPDLVHVMRTLASENIPSLPPGGELASKRNVIEAVYNRLNPYKNDDTDS  
TSTDDMW

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**FIGURE 349**

AGAGAGCCGAGCTCTGGAGCCTCAGCGAGCGGAGGAGGAGGCGCAGGGCCGACGGCCGAGTACTGCGGTGAGAGC  
CAGCGGGCCAGCGCCAGCCTCAACAGCCGCCAGAAGTACACGAGGAACCGGCGGGCGGCGTGTGCGTGTAGGCCCG  
TGTGCGGGCGGGCGGGCGGGAGGAGCGCGGAGCGGCAGCCGGCTGGGGCGGGTGGCATCATGGACGAGAAGGTGT  
TCACCAAGGAGCTGGACCAGTGGATCGAGCAGCTGAACGAGTGCAAGCAGCTGTCCGAGTCCCAGGTCAAGAGCC  
TCTGCGAGAAGGCTAAAGAAATCCTGACAAAAGAAATCCAACGTGCAAGAGGTTTCGATGTCCAGTTACTGTCTGTG  
GAGATGTGCATGGGCAATTTTCATGATCTCATGGAAGTGTGTTAGAATTGGTGGCAAATCACCAGATACAAATTACT  
TGTTTATGGGAGATTATGTTGACAGAGGATATTATTCAGTTGAAACAGTTACACTGCTTGTAGCTCTTAAGGTTT  
GTTACCGTGAACGCATCACCATTCTTCGAGGGAATCATGAGAGCAGACAGATCACACAAGTTTATGGTTTCTATG  
ATGAATGTTTAAGAAAATATGGAATGCAAATGTTTGGAAATATTTTACAGATCTTTTGTACTATCTTCCTCTCA  
CTGCCCTGGTGGATGGGCAGATCTTCTGTCTACATGGTGGTCTCTCGCCATCTATAGATACTGGATCATATCA  
GAGCACTTGATCGCCTACAAGAAGTTCCCATGAGGGTCCAATGTGTGACTTGCTGTGGTCAGATCCAGATGACC  
GTGGTGGTTGGGGTATATCTCCTCGAGGAGCTGGTTACACCTTTGGGCAAGATATTTCTGAGACATTTAATCATG  
CCAATGGCCTCACGTTGGTGTCTAGAGCTCACCAGCTAGTGATGGAGGGATATAACTGGTGCCATGACCGGAATG  
TAGTAACGATTTTCAGTGCTCCAACTATTGTTATCGTTGTGGTAACCAAGCTGCAATCATGGAACCTTGACGATA  
CTCTAAAATACTCTTTCTTGCAGTTTGACCCAGCACCTCGTAGAGGCGAGCCACATGTTACTCGTCGTACCCAG  
ACTACTTCCTGTAATGAAATTTTAACTTGTACAGTATTGCCATGAACCATATATCGACCTAATGGAAATGGGAA  
GAGCAACAGTAACTCCAAAGTGTGAGAAAATAGTTAACATTCAAAAACTTGTTTTACATGGACCAAAAGATGT  
GCCATATAAAAATACAAAGCCTCTTGTATCAACAGCCGTGACCACTTTAGAATGAACAGTTCATTGCATGCTG  
AAGCGACATTGTTGGTCAAGAAACCAGTTTCTGGCATAGCGCTATTTGTAGTTACTTTTGCTTTCTCTGAGAGAC  
TGCAGATAATAAGATGTAAACATTAACACCTCGTGAATACAATTTAACTTCCATTTAGCTATAGCTTTACTCAGC  
ATGACTGTAGATAAGGATAGCAGCAAACAATCATTGGAGCTTAATGAACATTTTAAAAATAATTACCAAGGCCT  
CCCTTCTACTTGTGAGTTTGAATTTGTTCTTTTTATTTTCAGGGATACCGTTTAAATTTAATTATATGATTTGTC  
TGCACTCAGTTTATTCCCTACTCAAATCTCAGCCCCATGTTGTTCTTTGTTATTGTGAGAACCCTGGTGAGTTGTT  
TTGAACAGAACTGTTTTTTCCCTTCTGTAAGACGATGTGACTGCACAAGAGCACTGCAGTGTTTTTCATAATA  
AACTTGTGAACTAAGAACTGAGAAGGTCAAATTTTAATTGTATCAATGGGCAAGACTGGTGCTGTTTTATTAAAAA  
AGTTAAATCAATTGAGTAAATTTTAGAATTTGTAGACTTGTAGGTAAAATAAAAAATCAAGGGCACTACATAACCT  
CTCTGGTAACTCCTTGACATTCTTCAGATTAACTTCAGGATTTATTTGTATTTACATATTACAATTTGTCACAT  
TGTTGGTGTGCACTTTGTGGGTTCTTCCTGCATATTAACCTGTTTGTAAAGAAAGGAAATCTGTGCTGCTTCAGTA  
AGACTTAATTGTAAAACCATATAACTTGAGATTTAAGTCTTTGGGTTGTGTTTTAATAAAACAGCATGTTTTCAG  
GTAGAG

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**FIGURE 350**

MDEKVFTKELDQWIEQLNECKQLSESQVKS LCEKAKEILTKESNVQEVRC PVTVC GDVHGQFHDLME LFRIGGKS  
PDTNYLFMGDYVDRGYYSVETVTLLVALKVRYRERITILRGNHESRQITQVYGFYDECLRKYG NANVWKYFTDLF  
DYLPLTALVDGQIFCLHGGLSPSIDTLDHIRALDRLQEV PHEGPMCDLLWSDPDDRGGWGISPRGAGYTFGQDIS  
ETFNHANGLTTLVSRAHQLVMEGYNWCHDRNVVTIF SAPNYCYRCGNQAAIMELDDTLKYSFLQFDPAPRRGEPHV  
TRRTPDYFL



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**FIGURE 351**

ATGTCTCTTGTCAGCTGTCTTTCAGAAGACCTGGTGGGGCAAGTCCGTGGGCATCATGTTGACCGAGCTGGAGAA  
AGCCTTGAACCTCTATCATCGACGTCTACCACAAGTACTCCCTGATAAAGGGGAATTTCCATGCCGTCTACAGGGA  
TGACCTGAAGAAATTGCTAGAGACCGAGTGTCTCAGTATATCAGGAAAAAGGGTGCAGACGTCTGGTTCAAAGA  
GTTGGATATCAACACTGATGGTGCAGTTAACTTCCAGGAGTTCCTCATTCTGGTGATAAAGATGGGCGTGGCAGC  
CCACAAAAAAGCCATGAAGAAAGCCACAAAGAGTAGCTGAGTTACTGGGCCCAGAGGCTGGGCCCCTGGACATG  
TACCTGCAGAATAATAAAGTCATCAATACCTCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 352**

MLTELEKALNSIIDVYHKYSLIKGNFHAVYRDDLLKKLLETCPQYIRKKGADVWFKELDINTDGAVNFQEFLILV  
IKMGVAAHKKSHKE

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**FIGURE 353**

CAAGAGAGAGAGAGAGGTGCAAGCCCCAAAGCGAGCGACATGTCCCTTTGGGGAGCAGTCCCTCTGCACCCCAGA  
GTGAGGAGGACGCAGGGGTTCAGAGGTGGCTACAGGGCAGGCAGAGGAGGCACCTGTAGGGGGTGGTGGGCTGGTG  
GCCCAGGAGAAGTCAGGAAGGGAGCCCAGCTGGTGACAAGAGAGCCCAGAGGTGCCTGGGGCTGAGTGTGAGAGC  
CCGGAAGATTTTCAGCCATGCCTCACAGCTCCGACAGCAGTGACTCCAGCTTCAGCCGCTCTCCTCCCCCTGGCAA  
ACAGGACTCATCTGATGATGTGAGAAGAGTTTCAGAGGAGGGAGAAAAATCGTATTGCCGCCCAGAAGAGCCGACA  
GAGGCAGACACAGAAGGCCGACACCCTGCACCTGGAGAGCGAAGACCTGGAGAAACAGAACGCGGCTCTACGCAA  
GGAGATCAAGCAGCTCACAGAGGAAGTGAAGTACTTCACGTCGGTGCTGAACAGCCACGAGCCCCTGTGCTCGGT  
GCTGGCCGCCAGCACGCCCTCGCCCCCGAGGTGGTGACAGCGCCACGCATTCCACCAACCTCATGTCAGCTC  
CCCGCGCTTCCAGCCCTGAGCTTCCGATGCGGGGAGAGCAGAGCCTCGGGAGGGGCACACAGACTGTGGCAGAGC  
TGCGCCCATCCCGCAGAGGCCCTGTCCACCTGGAGACCCGGAGACAGAGGCCTGGACAAGGAGTGAACACGGGA  
ACTGTCACGACTGGAAGGGCGTGAGGCCTCCCAGCAGTGCCGCAGCGTTTCGAGGGGCGTGTGCTGGACCCACC  
ACTGTGGGTTGCAGGCCCAATGCAGAAGAGTATTAAGAAAGATGCTCAAGTCCCATGGCACAGAGCAAGGCGGGC  
AGGGAACGGTTATTTTTCTAAATAAATGCTTTAAAGA

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**FIGURE 354**

MPHSSDSSDSSFSRSPPPGKQDSSDDVRRVQRREKNRIAAQKSQRQTQKADTLHLESEDLEKQNAALRKEIKQL  
TEELKYFTSVLNSHEPLCSVLAASTPSPPEVVYSAHAFHQPHVSSPRFQP

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**FIGURE 355**

GTT CAGCGCCGGCGCCGGTGTGCGAGCCGCGGCAGAGTGAGGCAGGCAACCCGAGGTGCGGAGCGACCTGCGGAG  
GCTGAGCCCCGCTTTCTCCAGGGTTTCTTATCAGCCAGCCGCGCTGTCCCCGGGGGAGTAGGAGGCTCCTGAC  
AGGCCGCGGCTGTCTGTGTGTCTTCTGAGTGTGAGGAAACGGCCAGACCCGCGGGCCGGAGCAGAACGCGGC  
CAGGGCAGAAAGCGGCGGCAGGAGAAGCAGGCAGGGGGCCGGAGGACGCAGACCGAGACCCGAGGCGGAGGCGGA  
CCGCGAGCCGCGCCATGTCGGTGGTGGGGTTGGACGTGGGCTCGCAGAGCTGTACATCGCGGTAGCCCGGGCCGG  
GGGCATCGAGACCATCGCCAATGAGTTCAGCGACCGGTGCACCCCGTCAGTCATATCATTGGATCAAAAAATAG  
AACAATCGGAGTTGCAGCCAAAAATCAGCAATCACTCATGCAACAATACGGTGTCTAACTTCAAAAGATTTC  
TGGCCGAGCATTCAACGACCCCTTCATTCAAAAGGAGAAGGAAAACTTGAGTTACGATTTGGTTCCATTGAAAA  
TGGTGGAGTTGGAATAAAGGTAATGTACATGGGTGAAGAACATCTATTTAGTGTGGAGCAGATAACAGCCATGTT  
GTTGACTAAGCTGAAGGAACTGCTGAAAACAGCCTCAAGAAACCAGTAACAGATTGTGTTATTTTCAGTCCCTC  
CTTCTTTACAGATGCTGAGAGGCGATCTGTGTTAGATGCTGCACAGATTGTTGGCCTAACTGTTTAAAGACTTAT  
GAATGACATGACAGCTGTTGCTTTGAATTACGGAATTTATAAGCAGGATCTCCCAAGCCTGGATGAGAAACCTCG  
GATAGTGGTTTTTGTGATATGGGACATTCAGCTTTTCAAGTGTCTGCTTGTGCTTTTAAACAAGGGAAAAATTGAA  
GGTACTGGGAACAGCTTTTGTATCCTTTCTTAGGAGGAAAAAACTTCGATGAAAAAGTTAGTGGAACTTTCTGTGC  
AGAATTTAAAACTAAGTACAAGTTGGATGCAAAATCCAAAATACGAGCACTCCTACGTCTGTATCAGGAATGTGA  
AAAACTGAAAAAGCTAATGAGCTCTAACAGCACAGACCTTCCACTGAATATCGAATGCTTTTATGAATGATAAAGA  
TGTTTTCCGGAAAGATGAACAGGTCACAATTTGAAGAACTCTGTGCTGAACCTCTGCAAAAGATAGAAGTACCCCT  
TTATTCAGTGTGGAAACAACTCATCTCAAAGTAGAAGATGTGAGTGCAGTTGAGATTGTTGGAGGCGCTACACG  
AATTCCAGCTGTGAAGGAAAGAAATTGCCAAATTCTTTGAAAAAGATATTAGCACAACTCAATGCAGATGAAGC  
AGTAGCCAGAGGATGTGCATTACAGTGTGCAATACTTTCCCGGCATTTAAAGTTAGAGAATTTTCCGTCACAGA  
TGCAGTTCCTTTTCCAATATCTCTGATCTGGAACCATGATTGAGAAGATACTGAAGGTGTTTATGAAGTCTTTAG  
TCGAAACCATGCTGCTCCTTTCTCCAAAGTTCTCACCTTTCTGAGAAGGGGGCCTTTTGAAGCTAGAAAGCTTTCTA  
TTCTGATCCCCAAGGAGTTCCATATCCAGAAGCAAAAATAGGCCGCTTTGTAGTTCAGAAATGTTTCTGCACAGAA  
AGATGGAGAAAAATCTAGAGTAAAAGTCAAAGTGCAGTCAACACCCATGGCATTTCACCATCTCTACGGCATC  
TATGGTGGAGAAAGTCCCAACTGAGGAGAATGAAATGTCTTCTGAAGCTGACATGGAGTGTCTGAATCAGAGACC  
ACCAGAAAACCCAGACACTGATGCAAAATGAAAAAAAGTTGACCAGCCTCCAGAAGCTAAAAAGCCCAAAATAAA  
GGTGGTGAATGTTGAGCTGCCTATTGAAGCCAACTGGTCTGGCAGTTAGGGAAAGACCTTCTTAACATGTATAT  
TGAGACAGAGGGTAAGATGATAATGCAAGATAAATGGAAAAAGAAAGGAATGATGCTAAAAATGCAGTTGAGGA  
ATATGTGTATGAGTTCAGAGACAAGCTGTGTGGACCATATGAAAAATTTATATGTGAGCAGGATCATCAAAATTT  
TTTGAGACTCCTCACAGAACTGAAGACTGGCTGTATGAAGAAGGAGAGGACCAAGCTAAACAAGCATATGTTGA  
CAAGTTGGAAGAATTAATGAAAAATGGCACTCCAGTTAAAGTTCCGTTTTCAGGAAGCTGAAGAACGGCCAAAAAT  
GTTTGAAGAACTAGGACAGAGGCTGCAGCATTATGCCAAGATAGCAGCTGACTTCAGAAATAAGGATGAGAAATA  
CAACCATATTGATGAGTCTGAAATGAAAAAAGTGGAGAAGTCTGTTAATGAAGTGATGGAATGGATGAATAATGT  
CATGAATGCTCAGGCTAAAAAGAGTCTTGATCAGGATCCAGTTGTACGTGCTCAGGAAATTAACAACAAATCAA  
GGAATTGAACAACACATGTGAACCCGTTGTAACACAACCGAAACCAAAATTTGAATCACCCTAACTGGAAAGAAC  
TCCAAATGGCCCAATATTGATAAAAAGGAAGAAGATTTAGAAGACAAAAACAATTTTGGTGCTGAACCTCCACA  
TCAGAATGGTGAATGTTACCCTAATGAGAAAAATCTGTTAATATGGACTTGGACTAGATAACCTTAAATTTGGCC  
TATTCCTTCAATTAATAAAATATTTTGGCATAGTATGTGACTCTACATAACATACTGAAACTATTTATATTTTC  
TTTTTTAAGGATATTTAGAAATTTTGTGTTATATGGAAGAAAGAAAAAGCTTAAGTCTGTAGTCTTTATGAT  
CCTAAAAGGGAAAAATTGCCCTTGGTAACTTTTCAGATTCTGTGGAATTGTGAATTCATACTAAGCTTTCTGTGCAG  
TCTCACCATTTGCATCACTGAGGATGAACTGACTTTTGTCTTTTGGAGAAAAAAACTGTACTGTTGTTCAAGA  
GGGCTGTGATTAAATCTTTAAGCATTGTTTCTGCAAGGTAGTTTCTTGCATTTTGTCTCCATTCAGCATG  
TGTTGGGGTGTGGATGTTTATAAACAAGACTAAGTCTGACTTCATAAGGGCTTTCTAAAACCATTTCTGTCCAAG  
AGAAAATGACTTTTTGCTTTGATATTAATAAATTCATGAGTAAACAAAAGCTAGTCAATGTGTTAGCAGCATG  
CAGAACAAAACTTTAACTTTCTCTCTACTATACAGTATATTGTCAATGTGAAAGTGTGGAATGGAAGAAATG  
TCGATCCTGTTGTAAGTATTGTGAACACTTTTATGAGCTTTAAATAAAGTTTCATCTTATGGTGTCAATTCT

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**FIGURE 356**

MSVVGLDVGSQSCYIAVARAGGIETIANEFSDRCTPSVISFGSKNRTIGVAAKNQQITHANNTVSNFKRFGHGRAF  
NDPFIQKEKENLSYDLVPLKNGGVGKVMYMGEEHLFSVEQITAMLLTKLKETAENSLKKPVTDCVISVPSFFTD  
AERRSVLDAAQIVGLNCLRLMNDMTAVALNYGIYQDLPSLDEKPRIVVFVDMGHSAFQVSACAFNKGKLVLT  
AFDPFLGGKNFDEKLVEHFCAEFKTKYKLDAKSKIRALLRLYQECEKLKKLMSSNSTDLPLNIECFMNDKDVSGK  
MNRSQFEELCAELLQKIEVPLYSLLEQTHLKVEDVSAVEIVGGATRIPAVKERIAKFFGKDISTTLNADEAVARG  
CALQCAILSPAFAKVPREFSVTDVFPFISLIWNHDSDETEGVHEVFSRNHAAPFSKVLTFLLRRGPFELEAFYSDPQ  
GVPYPEAKIGRFVVQNVSAQKDGEKSRVKVKVRVNTHGIFTISTASMVEKVPTEENEMSSEADMECLNQRPPENP  
DTDANEKKVDQPPEAKKPKIKVVNVELPIEANLVWQLGKDLLNMYIETEGKMIMQDKLEKERNDAKNAVEEYVYE  
FRDKLCGPYEKFIQEDHQNFLRLLTETEDWLYEEGEDQAKQAYVDKLEELMKIGTPVKVRFQAEERPKMFEEEL  
GQRLQHYAKIAADFRNKDEKYNHIDESEMKKVEKSVNEVMEWMNNVMNAQAKKSLDQDPVVRAQEIKTKIKELNN  
TCEPVVTQPKPKIESPKLERTPNNGPNIDKKEEDLEDKNNFGAEPHQNGECPNEKNSVNMDLD

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**FIGURE 357**

AGGAAATGGTTTCTGGAAAACGTTAGTAAGGTCAGTTTTTAAACACTGAATCCAAGGTTGTCTTCTGGAATATCC  
AAATTGGTTATGACCAGAAATGTGATTCACTATACTAAGCTAAAGGAATAGATTAAAGAATTAGCAACAGTGGCCG  
GGTGCAGTGGCTCATGCCCTGTAACCCAGCACTTTGGGGGAGGCCAGGTGGGTGGATCATTGAGGTCAGGAGT  
TTGAGACCAGCCTGGCCAACATGGTGAAACCTAAAAATACAAAATTAGCCAGGTGTGGTGGCAGGTGCTTGTAAT  
TCCCAGCTGCTTGGGAGGCTGAAGCAGGAGAATTGCTTGAACCCGAGGCAGGGGTTGCAGTGAGCCAAGATCAC  
ACCATTGCACTCCAGCCTGGGTGGCAGAGTGAGACTCTGTCTCAAAAATTAAAAAGCAACAGTGTATATGCAATA  
GTTGCAAGATGTAAGATCACCCAAAGAGTATGCAGAGGGAAATGAGGGACAGAACCAGAAATATTAATACCCAG  
GGAGTGAACAGGAGGAGGACCCCAAGAAGTTACTGAGTCAGATTTTTCCCACTCATCCAGGTGAAAGTTTAGGTC  
AATAATGTGAAATACCAGAGGGATTAAATGTCTACAGAAATAAAACCATGTCTCACATTAAGACAAACAAGTAGG  
TTGGAGGGATATTTTGAAGGCAAGGTGATATTAACTTTATTCTGAAAGTAGTTTGTAGAGAAAAGAGGCATGA  
TAAGAGTTGCAGTTAACTGATTGGAACATATGCAGCAGATGAAACTGGAATAAAGGAAACTCATCAGGAAATGAT  
TATAGTAATAAGGGCCAGAAATAAGGGCTTGCTTGCCTGAACTAAAAACAAAGAGGATACAAAGGTTCTAGAAAT  
ATTTCAAAGGAATTAGCTTTAATTCAGCAATACTCATTGAGAATCACCTATGCACCTGGCTCTGAAGATGAAGTG  
CTGAGTAACTTAGACATGGACCCTGCTATCATGGAGATGGCAGATTATTGGTCAGAATGCTCTTACCTGTCTATT  
GTAGCAATTTTGTAGATCCTTAATACCTCTGAATTGCTAATAAACTTGTTTTGGCTGAAAAAATAGTCCTGTGA  
ATTTTACCATGCAGTTAAATAAGAACTAAAAGCAAACCTAAATACCACCAAAAAGGTTAGTAGTCTGTTATATG  
CATTAGCCTTAATCTAAGGAAATATTTTATTATAGGTCTCCTTGAAGAAAATGATATTTTCAGGAATGCTCAAGC  
AGGTGTTCTCATCAGCACTAATAGTCATCCAATCTTAAGGAAAAACAGAATATTTGATGGATTGCGGCAGGTAT  
TGAAATTACAAATCACGCAACTGCAACACTAGAAGGCAATCAGATTTTTTAACAACCGGTTTGGAGGCTTATTTTT  
AGCATCTGGTGTTAATGTGACAATGAAAGATAACAAAATAATGAACAATCAAGATGCCATAGAAAAGGCTGTTAG  
TAGAGGCCAATGTTTATATAAAAATATCAAGTTATACCAGCTATCCCATGCATGATTTCTACAGATGTCATACTTG  
TAACACCACAGATCGAAATGCCATATGTGTGAAGTGCATTAAGAAGTGCCATCAGGGACATGATGTAGAGTTTAT  
TAGACATGATAGGTATGTAGCACACTTGCTTGATATATTACCAATTACTTTCCCCCTCACTTTTCTAATATTTG  
GGTTTCATTTTGTCTTTAGGTTTTTCTGTGACTGTGGTGCTGGAACACTGTCTAATCCTTGACATTAGCTGGTGA  
GCCTACACATGATACAGATACACTATATGACTCTGCTCCACCTATAGAATCTAATAACATTGCAGCACAACTGAAAT  
TCCTTCCCTAAAGAAAAAGTCCCTGCCATTGTAACATCATAACTTAAACACTTTTTTGAAGAAGATTTAAAATA  
TTTGCCCATGCTACAGGAAGAGACTGTATTAATAATGGATACACAAGGTCAGTTGACACTATGAAGCTCAAGCTA  
CCAAAAAGAAAGTGGCAATATATTGACTCAGGATCTCAAAGCTGGGTGTTTTAGCATTACTGTGTAAAGACTTGA  
AGGGACAGAAGTGAAGAAAAATAAGCTGCAATTTTGTACAGATACCAACTTCTGAAAAGCTGGTGTTTTACAAC  
AGCATTGAATGCAGTCCAATTTGCAGTAGTAATCTTCAATAGACAAGCAGCTTTGTTGCTGCCTTTATGGACATG  
GGTACCAATTGCTTTTGTAAATATGGTAAAAATGTGAGCTAGCACTTCTGCGTTCTTTTGTATTTTTTTTTTAA  
CATGTATTCAGATTGAGAAATATGATTTTAATGCCTTAATCTCATGTAGTTTGTTTTTAATTTCAAGCAAAATCT  
TACTGTACTTGAATGTGCCCTGTTTTGTAGCACACCTAGACTTGCTGTAAGTGTACTCATGTCCCAGTATGTAC  
GTTCTTTCTATGAAAGAGAAAAACACTAATCTTAAATTATATCCAGCAATGTTTCTGGTATCCTTTAAGAAAAGTT  
AAGACTATTATTTCTTCCCTTCCCTGTGCAGCATTCAAAAATCACCCCTAGAAAAAGTGAGTGTTTTAAATGAGA  
CTTCCCTAGGAAGGGATGCACTGTAAAAACAAAAGTATTCTTGTAAGTCAAGTTTGTGAAAGGTAAAAAACTACTAT  
GTTTTAAGTACACTTTAGAAAGTCTCTTCAAAAACAAACAGTCCTGTATTTGAACTCTGTTTCATAGTTTTTTTTTG  
AACAGTTTAGACAAAAGTGTGGAATTAACCAATTTCTTGCAATTAAGCTGAGACAAGTATATAAACAGCCCTA  
TACAGTTTCATAGCTTTTCTCCCCCATTTATGTGTATTGGTGACAGTGGGTATAAACAGCCTGAAAGTGTATG  
CATGTACCATAACATTTAGACTTAATATATTGTGGAGTATTCAATAACCATTATGTAGAAGGTAGATAAGAATTA  
AAAGGGTTTAATTTCTAGAAAGAAAAATGGAAAAATGGTCATTTTTTAAAAAATAAAGTTTATTAGATCATAATGT  
TGTCTGAATTTACCACCTTTGTGAGAAGTCAACTCAAAGCTTCCAATGTAGTCAGTCTATAATTCCTTAATCAAA  
GTCAGCAATTTATGGACAGCTTCAGCATTTACAGTTGACCTTTCACTAGCCAGGCAAACTTCCCTTAAATTA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 358**

MKDNKIMNNQDAIEKAVSRGQCLYKISSYTSYPMHDFYRCHTCNTTDRNAICVNCIKKCHQGHDFEIRHRYVA  
HLLDILPNYFPPHFSNIWVSFCFRFFCDGAGTLSNPCTLAGEPTHDTDTLYDSAPPIESNTLQHN.



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**FIGURE 359**

GCGACGCGCCGAGGTACTAGGCAGAGCCGTGGAACCGCCGCCAGGTGCTGTTGGTCCACGCCGCCCGTTCGCGCC  
GCCCGCCCGCTCAGCGTCCGCCGCCGCCATGGGAGTGCAGGTGGAAACCATCTCCCCAGGAGACGGGCGCACCTT  
CCCCAAGCGCGGCCAGACCTGCGTGGTGCCTACACCGGGATGCTTGAAGATGGAAAGAAATTTGATTCTCTCCG  
GGACAGAAACAAGCCCTTTAAGTTTATGCTAGGCAAGCAGGAGGTGATCCGAGGCTGGGAAGAAGGGGTTGCCCA  
GATGAGTGTGGGTCAGAGAGCCAACTGACTATATCTCCAGATTATGCCTATGGTGCCACTGGGCACCCAGGCAT  
CATCCCACCACATGCCACTCTCGTCTTCGATGTGGAGCTTCTAAACTGGAATTGACAGGAATGGCCTCTCTCCCTT  
AGCTCCCTGTTCTTGGGTAAGGAAATGGAATACTGAAGGGCCCTTCACTGCCTTTGCTCCTCCCATGTTATGCCC  
AGCGTTTGATGGGTAGCAGAGAGAACAACCAAGGCTATTTTTCCCCCTGCATTCTTTCTGTATTGAG  
TATCCTTTTCAGTGTTATTAGTGTATGCTTTGAATGTAAAAATTGGTCACCCTAAGGAAAGGAATTGGCATGTGTA  
TGTTCCCGATTCAACTCATGGAGATGGCAGCTGTTTAAATGTTTTCTATGTAGTTTATAAATTAAACTGAATT  
GAGGACTATGGAAATGTAGGCCAAATTTGTAGTGCCAACATTTTAGTTCTTTGGAAATAA

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**FIGURE 360**

MGVQVETISPGDGRTFPKRGQTCVVHYTGMLDGGKKFDSSRDRNKPFKFMLGKQEVIRGWEEGVAQMSVGQRAKL  
TISPDYAYGATGHPIIPPHATLVFDVELLKLE

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**FIGURE 361A**

GCACAGTCTGTCTCTTCGCCGGTTCCCGGCCCCGTGGATCCTACTTCTCTGTGCGCCCGCGGTTCCGCCGCCCGCT  
CGCCGCCCGCGATGCCAGTGTTTCATACGCGCACGATCGAGAGCATCCTGGAGCCGGTGGCACAGCAGATCTCCCA  
CCTGGTGATAATGCACGAGGAGGGCGAGGTGGACGGCAAAGCCATTCTTGACCTCACC GCGCCCGTGGCCGCCGT  
GCAGGCGGCCGTGAGCAACCTCGTCCGGGTTGGAAAAGAGACTGTTCAAACCACTGAGGATCAGATTTTGAAGAG  
AGATATGCCACCAGCATTTATTAAGGTTGAGAATGCTTGCACCAAGCTTGTCAGGCAGCTCAGATGCTTCAGTC  
AGACCCTTACTCAGTGCTGCTCGAGATTATCTAATTGATGGGTCAAGGGGCATCCTCTCTGGAACATCAGACCT  
GCTCCTTACCTTCGATGAGGCTGAGGTCCGTAAAAATTATTAGAGTTTGCAAAGGAATTTTGGAAATATCTTACAGT  
GGCAGAGGTGGTGGAGACTATGGAAGATTTGGTCACTTACACAAAGAATCTTGGGCCAGGAATGACTAAGATGGC  
CAAGATGATTGACGAGAGACAGCAGGAGCTCACTACCAGGAGCACCGAGTGATGTTGGTGAACTCGATGAACAC  
CGTGAAAGAGTTGCTGCCAGTTCTCATTTACAGCTATGAAGATTTTGTAACTAACTAAAACTCAAAAAACCAAGG  
CATAGAGGAAGCTTTAAAAAATCGCAATTTTACTGTAGAAAAATGAGTGCTGAAATTAATGAGATAATTCGTGT  
GTTACAACCTCACCTCTTGGGATGAAGATGCCTGGGCCAGCAAGGACACTGAAGCCATGAAGAGAGCATTGGCCTC  
CATAGACTCCAACTGAACCAGGCCAAAGGTTGGCTCCGTGACCCTAGTGCTCCCCAGGGGATGCTGGTGAGCA  
GGCCATCAGACAGATCTTAGATGAAGCTGGAAGTTGGTGAACCTGTGTCAGGCAAAGAACGCAGGGAGATTCT  
GGGAACCTGCAAAATGCTAGGGCAGATGACTGATCAAGTGGCTGACCTCCGTGCCAGAGGACAAGGATCCTCACC  
GGTGGCCATGCAGAAAGCTCAGCAGGTATCTCAGGCTCTGGATGTGCTCACAGCAAAGTGGAAAATGCAGCTCG  
CAAGCTGGAAGCCATGACCAACTCAAAGCAGAGCATTGCAAAGAAGATCGATGCTGCTCAGAACTGGCTTGCA  
TCCAAATGGTGGACCGGAAGGAGAAGAGCAGATTGAGGTGCTTTGGCTGAAGCTCGGAAAATAGCAGAATTATG  
TGATGATCCTAAAGAAAGAGATGACATTCTACGTTCCCTTGGGGAAATATCTGCTCTGACTTCTAAATTAGCAGA  
TCTACGAAGACAGGGGAAAGGAGATTCTCAGAGGCTCGAGCCTTGGCCAAACAGGTGGCCACGGCCCTGCAGAA  
CCTGCAGACCAAAACCAACCGGGCTGTGGCCAACAGCAGACCGGCCAAAGCAGCTGTACACCTTGAGGGCAAGAT  
TGAGCAAGCACAGCGGTGGATTGATAATCCACAGTGGATGACCGTGGAGTCGGTCAGGCTGCCATCCGGGGGCT  
TGTGGCCGAAGGGCATCGTCTGGCTAATGTTATGATGGGGCCTTATCGGCAAGATCTTCTCGCCAAGTGTGACCG  
AGTGGAACAGCTGACAGCCCAGCTGGCTGACCTGGCTGCCAGAGGGGAAGGGGAGAGTCCTCAGGCACGAGCACT  
TGCATCTCAGCTCCAAGACTCCTTAAAGGATCTAAAAGCTCGGATGCAGGAGGCCATGACTCAGGAAGTGTGAGA  
TGTTTTTACGCGATACCACAACCTCCCATCAAGCTGTTGGCAGTGGCAGCCACGGCGCCTCCTGATGCGCCTAACAG  
GGAAGAGGTATTTGATGAGAGGGCAGCTAACTTTGAAAACCACTCAGGAAAGCTTGGTGCTACGGCCGAGAAGGC  
GGCTGCGGTTGGTACTGCTAATAAATCAACAGTGGAAAGGCATTACGGCCTCAGTGAAGACGGCCCGAGAATCAC  
ACCCAGGTGGTCTCGGCTGCTCGTATCTTACTTAGGAACCTGGAAATCAAGCTGCTTATGAACATTTTGAGAC  
CATGAAGAACCAGTGGATCGATAATGTTGAAAAATGACAGGGCTGGTGGACGAAGCCATTGATACCAATCTCT  
GTTGGATGCTTCAGAAGAAGCAATTAAAAAAGACCTGGACAAGTGCAAGGTAGCTATGGCCAACATTCAGCCTCA  
GATGCTGGTTGCTGGGGCAACCAAGTATTGCTCGTCGGGCCAACCGGATCCTGCTGGTGGCTAAGAGGGAGGTGGA  
GAATTCGAGGATCCCAAGTTCGGTGAGGCTGTGAAAGCTGCCTCTGATGAATTGAGCAAAAACCATCTCCCCAAT  
GGTGATGGATGCAAAAGCTGTGGCTGGAAACATTTCCGACCCTGGACTGCAAAAGAGCTTCTTGGAAGTCAAGGATA  
TCGGATCCTGGGAGCTGTGGCCAAGGTCAGAGAAGCCTTCCAACCTCAGGAGCCTGACTTCCCGCCGCTCCACC  
AGACCTTGAACAACTCCGACTAACAGATGAGCTTGCTCCTCCCAAACCACTCTGCCTGAAGGTGAGGTCCCTCC  
ACCTAGGCCTCCACCACCAGAGGAAAAGGATGAAGAGTTCCCTGAGCAGAAGGCCGGGGAGGTGATTAAACAGCC  
AATGATGATGGCTGCCAGACAGCTCCATGATGAAGCTCGCAAATGGTCCAGCAAGCCGGGCATCCAGCCGCTGA  
GGTGGGTATAGGTGTTGTAGCTGAGGCAGATGCGGCCGATGCTGCTGGCTTCCCTGTCCCCCTGACATGGAAGA  
CGATTACGAACCTGAGCTGCTGTTAATGCCATCCAATCAGCCGGTCAACCAGCCATTCTGGCCGCGGCTCAGTC  
CTTGATCGGGAAGCTACCAAGTGGTCTAGTAAGGGCAATGACATCATTGCAGCAGCCAAGCGCATGGCTCTGCT  
GATGGCTGAGATGTCTCGGCTGGTAAGAGGGGGCAGTGGTACCAAGCGGGCACTCATTAGTGTCGAAGGACAT  
CGCCAAGGCCTCAGATGAGGTGACTCGGTTGGCCAAGGAGGTTGCCAAGCAGTGCACAGATAAACGGATTAGAAC  
CAACCTCTTACAGGTATGTGAGCGAATCCCAACCATAAGCACCCAGCTCAAAATCCTGTCCACAGTGAAGGCCAC  
CATGCTGGGCGCGACCAACATCAGTGATGAGGAGTCTGAGCAGGCCACAGAGATGCTGGTTTACAATGCCAGAA  
CCTCATGCAGTCTGTGAAGGAGACTGTGCGGGAAGCTGAAGCTGCTTCAATCAAAATTCGAACAGATGCTGGATT  
TACACTGCGCTGGGTTAGAAAGACTCCCTGGTACCAGTAGGCACCTGGCTGAGCCTGGCTGGCACAGAAACCTCT  
ACTAAAAGAAGGAAAATGATCTGAGTCCCAGGAGCTGCCAGAGTTGCTGGGAGCTGAAAAATCACATCCTGGC

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**FIGURE 361B**

CTGGCACATCAGAAAGGAATGGGGGCCTCTTCAAATTAGAAGACATTTATACTCTTTTTTCATGGACACTTTGAA  
ATGTGTTTCTGTATAAAGCCTGTATTCTCAAACACAGTTACACTTGTGCACCCTCTATCCCAATAGGCAGACTGG  
GTTTCTAGCCCATGGACTTCACATAAGCTCAGAATCCAAGTGAACACTAGCCAGACACTCTGCTCTGCCCTTGTT  
CCCTAGGGGACACTTCCCTCTGTTTCTCTTTTCCTTGGCTCCCATTCACTCTTCCAGAATCCCAAGACCCAGGGCC  
CAGGCAAATCAGTTACTAAGAAGAAAATTGCTGTGCCTCCCAAATGTTTTGAGCTTTCCATGTTGCTGCCAAC  
CATACCTTCCTTCCCTGGGCTGTGCTACCTGGGTCTTTTCAGAAGTGAGCTTTGCTGCTACAGGGGAAGGTGGC  
CTCTGTGGAGCCCAGCATATGGGGGCCTGGATTCAATTCCTGCCCTTCCTCAGTTTAATCCTTCTAGTTTCCCA  
CAATATAAACTGTACTTCACTGTGAGGAAGAAATCACAGAATCATATGATTCTGCTTTTACCATGCCCTGAGC  
AATGTCTGTGCTAGGGAACTCCCGTCCCATATCCTGCCTCAGCCCGCCAAGGTAGCCATCCCATGAACACACT  
GTGTCTGTGCTCTCTGCCACTGGAAGGGCAGAGTAGCCAGGGTGTGGCCCTGCCATCTTCCAGCAGGGCCAC  
TCCGGCACTCCATGCTTAGTCACTGCCTGCAGAGGTCTGTGCTGAGGCCTTATCATTCAATCTTAGCTCTTAAT  
TGTTCATTTTGAGCTGAAATGCTGCATTTTAATTTTAACCAAAACATGTCTCCTATATCCTGGTTTTTGTAGCCT  
TCCTCCACATCCTTTCTAAACAAGATTTTAAAGACATGTAGGTGTTTGTTCATCTGTAACCTCTAAAGATCCTTT  
TTAAATTCAGTCCTAAGAAAGAGGAGTGCTTGTCCCTAAGAGTGTTTAATGGCAAGGCAGCCCTGTCTGAAGGA  
CACTTCCTGCCTAAGGGAGAGTGGTATTTGCAGACTAGAATTCTAGTGCTGCTGAAGATGAATCAATGGGAAATA  
CTACTCCTGTAATTCCTACCTCCCTGCAACCAACTACAACCAAGCTCTCTGCATCTACTCCCAAGTATGGGGTTC  
AAGAGAGTAATGGGTTTCATATTTCTTATCACCACAGTAAGTTCTACTAGGCAAAATGAGAGGGCAGTGTTTCC  
TTTTTGGTACTTATTACTGCTAAGTATTTCCCAGCACATGAAACCTTATTTTTTCCAAAGCCAGAACCAGATGAG  
TAAAGGAGTAAGAACCTTGCCTGAACATCCTTCCCTCCACCCATCGCTGTGTGTTAGTTCCCAACATCGAATGT  
GTACAACCTTAAGTTGGTCCTTTACACTCAGGCTTTCACTATTTTCTTTTAAATGAGGATGATTATTTTCAAGGCC  
CTCAGCATATTTGTATAGTTGCTTGCCTGATATAAATGCAATATTAATGCCTTTAAAGTATGAATCTATGCCAAA  
GATCACTTGTGTTTTACTAAAGAAAGATTACTTAGAGGAAATAAGAAAAATCATGTTTGCTCTCCCGGTTCTTC  
CAGTGGTTTTGAGACACTGGTTTACACTTTATGCCGGATGTGCTTTTCTCCAATATCAGTGCTCGAGACACAGTGA  
AGCAAATTAACAAAAA

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**FIGURE 362**

MPVFHTRTIESILEPVAQQISHLVIMHEEGEVDGKAIPDLTAPVAAVQAAVSNLVRVGKETVQTTEQILKRDMP  
PAFIKVENACTKLVQAAQMLQSDPYSPARDYLIDGSRGILSGTSDLLLTDFDEAEVRKIIRVCKGILEYLTVAEV  
VETMEDLVITYTKNLGPGMTKMAKMIDERQQELTHQEHVMLVNSMNTVKELLPLISAMKIFVTTKNSKNQGIEE  
ALKNRNFTVEKMSAEINEIIRVLQLTSWDEDAWASKDTEAMKRALASIDSKLNQAKGWLDRDPSASPGDAGEQAIR  
QILDEAGKVGEELCAGKERREILGTCKMLGQMTDQVADLRARGQGSSPVAMQKAQQVSQGLDVLTAKVENAARKLE  
AMTNSKQSIAKKIDAAQNWLADPNNGGPEGEEQIRGALAEARKIAELCDDPKERDDILRSIGEISALTSKLADLRR  
QGKGDSPEARALAKQVATALQNLQTKTNRAVANSRPAKAAVHLEGKIEQAQRWIDNPTVDDRGVQAAIRGLVAE  
GHRLANVMMGPYRQDLLAKCDRVDQLTAQLADLAARGESESPQARALASQLQDSLKDLKARMQEAMTQEVSDVFS  
DTTTPIKLLAVAATAPPDAPNREEVFDERAANFENHSGKLGATAEKAAAVGTANKSTVEGIQASVKTARELTPQV  
VSAARILLRNPGNQAAYEHFETMKNQWIDNVEKMTGLVDEAIDTKSLDASEEAIKKDLCKVAMANIQPQMLV  
AGATSIARRANRILLVAKREVENSEDPKFREAVKAASDELSKTI SPMVMDAKAVAGNISDPGLQKSFLDSGYRIL  
GAVAKVREAFQPQEPDFPPPPPDLEQLRLTDELAPPKPPLPEGEVPPPRPPPPPEEKDEEFPEQKAGEVINQPM  
AARQLHDEARKWSSKPGIPAAEVGIGVVAEADAADAAGFPVPPDMEDDYEPPELLLMPSNQPVNQPIILAAQSLHR  
EATKWSSKGNDIIAAAKRMALLMAEMSRLVRGGSGTKRALIQCAKDIKASDEVTRLAKEVAKQCTDKRIRTNLL  
QVCERIPTISTQLKILSTVKATMLGRNISDEESEQATEMLVHNAQNLMSVKETVREAEAAASIKIRTDAGFTLR  
WVRKTPWYQ

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**FIGURE 363**

GTCCATGGGGACCCCTCGCCTTCGATGAATATGGGCGCCCTTTCTCATCATCAAGGATCAGGACCGCAAGTCCCG  
TCTTATGGGACTTGAGGCCCTCAAGTCTCATATAATGGCAGCAAAGGCTGTAGCAAATACAATGAGAACATCACT  
TGGACCAAATGGGCTTGATAAGATGATGGTGGATAAGGATGGGGATGTGACTGTAACATAATGATGGGGCCACCAT  
CTTAAGCATGATGGAIGTTGATCATCAGATTGCCAAGCTGATGGTGGAACTGTCCAAGTCTCAGGATGATGAAAT  
TGGAGATGGAACCACAGGAGTGGTTGTCCTGGCTGGTGCCTTGTTAGAAGAAGCGGAGCAATTGCTAGACCGAGG  
CATTACCCAATCAGAATAGCCGATGGCTATGAGCAGGCTGCTCGCGTTGCTATTGAACACCTGGACAAGATCAG  
CGATAGCGTCCTTGTTGACATAAAGGACACCGAACCCCTGATTAGACAGCAAAAACCACGCTGGGCTCCAAAGT  
GGTCAACAGTTGTCACCGACAGATGGCTGAGATTGCTGTGAATGCCGTCCTCACTGTAGCAGATATGGAGCGGAG  
AGACGTTGACTTTGAGCTTATCAAAGTAGAAGGCAAAGTGGGCGGCAGGCTGGAGGACACTAAACTGATTAAGGG  
CGTGATTGTGGACAAGGATTTCACTCACCCACAGATGCCAAAAAAGTGGAAAGATGCGAAGATTGCAATTCTCAC  
ATGTCCATTTGAACCACCCAAACCAAAAACAAAGCATAAGCTGGATGTGACCTCTGTGCAAGATTATAAAGCCCT  
TCAGAAATACGAAAAGGAGAAATTTGAAGAGATGATTCAACAAATTAAAGAGACTGGTGCTAACCTAGCAATTTG  
TCAGTGGGGCTTTGATGATGAAGCAAATCACTTACTTCTTCAGAACAACCTTGCTGCGGTTGCTGGGTAGGAGG  
ACCTGAAATTGAGCTGATTGCCATCGCAACAGGAGGGCGGATCGTCCCCAGGTTCTCAGAGCTCACAGCCGAGAA  
GCTGGGCTTTGCTGGTCTTGACAGGAGATCTCATTTGGGACAACCTAAGGATAAAATGCTGGTCATCGAGCAGTG  
TAAGAACTCCAGAGCTGTAACCATTTTTATTAGAGGAGGAAATAAGATGATCATTGAGGAGGCGAAACGATCCCT  
TCACGATGCTTTGTGTGTCATCCGGAACCTCATCCGCGATAATCGTGTGGTGTATGGAGGAGGGGCTGCTGAGAT  
ATCCTGTGCCCTGGCAGTTAGCCAAGAGGCGGATAAGTGCCCCACCTTAGAACAGTATGCCATGAGAGCGTTTGC  
CGACGCACTGGAGGTCATCCCCATGGCCCTCTCTGAAAACAGTGGCATGAATCCCATCCAGACTATGACCGAAGT  
CCGAGCCAGACAGGTGAAGGAGATGAACCCTGCTCTTGGCATCGACTGTTTGCAACAAGGGGACAAATGATATGAA  
GCAACAGCATGTGCATAGAAACCTTGATTGGCAAAAAGCAACAGATATCTCTTGCAACACAAATGGTTAGAATGAT  
TTTGAAGATTGATGACATTCGTAAGCCTGGAGAATCTGAAGAATGAAGACATTGAGAAAACTATGTAGCAAGATC  
CACTTCTGTGATTAAGTAAATGGATGTCTCGTGATGCGTCTACAGTTATTTATTGTTACATCCTTTTCCAGACAC  
TGTAGATGCTATAATAAAAAATAGCTGTTTGGTAACCATAGTTTCACTTGTTCAAAGCTGTGTAATCGTGGGGGTA  
CTATCTCAACTGCTTTTGTATTCAATTGTATTAAAAAGAACTGTGTTAAACAACCTTTATCTTCTCTTCGGGTTTAA  
GAAACGTTTATTGTAACAGTAATTAAATGCTGCCTTAATTGAAAAAAAAAAAAAAAAAAAA

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**FIGURE 364**

SMGTLAFDEYGRPFLIIKDQDRKSRLMGLEALKSHIMAAKAVANTMRTSLGPNGLDKMMVDKDGDTVVTNDGATI  
LSMMDVDHQIAKLMVELSKSQDDEIGDGTGTVVVLAGALLEEAEQLLDRIHPIRIADGYEQAAARVAIEHLDKIS  
DSVLVDIKDTEPLIQTAKTTLGSKVVNSCHRQMAEIAVNAVLTVADMERRDVDFELIKVEGKVGGRLDTKLIK  
VIVDKDFSHPQMPKKVEDAKIAILTCPFEPKPKTKHKLDVTSVEDYKALQKYEKEKFEEMIQQIKETGANLAIC  
QWGFDDDEANHLLQNNLPAVRWVGGEIELIAIATGGRIVPRFSELTAEKLGFAGLVQEISFGTTKDKMLVIEQC  
KNSRAVTIFIRGGNKMIIEEAKRSLHDALCVIRNLIRDNRVYGGGAAEISCALAVSQEADKCPtleQYAMRAFA  
DALEVIPMALSENSGMNPIQTMTEVRARQVKEMNPALGIDCLHKGTNDMKQQHVIETLIGKKQQISLATQMVRMI  
LKIDDIRKPGEESE

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**FIGURE 365**

AAACACTCTGTGTGGCTCCTCGGCTTTGGGACAGAGTGCAAGACGATGACTTGCAAAATGTCGCAGCTGGAACGC  
AACATAGAGACCATCATCAACACCTTCCACCAATACTCTGTGAAGCTGGGGCACCCAGACACCCTGAACCAGGGG  
GAATTCAAAGAGCTGGTGCGAAAAGATCTGCAAAATTTTCTCAAGAAGGAGAAATAAGAATGAAAAGGTCATAGAA  
CACATCATGGAGGACCTGGACACAAATGCAGACAAGCAGCTGAGCTTCGAGGAGTTCATCATGCTGATGGCGAGG  
CTAACCTGGGCCTCCACGAGAAGATGCACGAGGGTGACGAGGGCCCTGGCCACCACCATAAGCCAGGCCTCGGG  
GAGGGCACCCCCTAAGACCACAGTGGCCAAGATCACAGTGGCCACGGCCATGGCCACAGTCATGGTGGCCACGGC  
CACAGGCCACTAATCAGGAGGCCAGGCCACCCTGCCTCTACCCAACCAGGGCCCCGGGGCCTGTTATGTCAAAC  
GTCTTGGCTGTGGGGCTAGGGGCTGGGGCCAATAAAGTCTCTTCCTCAA



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**FIGURE 366**

MTCKMSQLERNIETIINTFHQYSVKLGHPDTLNQGEFKELVRKDLQNFLKKENKNEKVIEHIMEDLDTNADKQLS  
FEEFIMLMARLTWASHEKMHEGDEGPGHHHKPGLGEGTP

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**FIGURE 367A**

CCGACCAACACCAACACCCAGCTCCGACGCAGCTCCTCTGCGCCCTTGCCGCCCTCCGAGCCACAGCTTTCCTCC  
CGCTCCTGCCCCCGGCCGTCGCGCTCTCCGCGCTCGCAGCGGCCTCGGGAGGGCCCAGGTAGCGAGCAGCGACC  
TCGCGAGCCTTCCGCACTCCCGCCCGGTTCCCCGGCCGTCCGCCTATCCTTGCCCCCTCCGCTTTCCTCCGCGCC  
GGCCCGCCTCGCTTATGCCTCGGCGCTGAGCCGCTCTCCCGATTGCCCCCGACATGAGCTGCAACGGAGGCTCC  
CACCCGCGGATCAACACTCTGGGCCGATGATCCGCGCGGAGTCTGGCCCGACCTGCGCTACGAGGTGACCAGC  
GGCGGCGGGGGCACCAGCAGGATGTACTATTCTCGGCGCGGCGTGATCACCGACCAGAACTCGGACGGCTACTGT  
CAAACCGGCACGATGTCCAGGCACCAGAACAGAACACCATCCAGGAGCTGCTGCAGAACTGCTCCGACTGCTTG  
ATGCGAGCAGAGCTCATCGTGCAGCCTGAATTGAAGTATGGAGATGGAATACAACCTGACTCGGAGTCGAGAATTG  
GATGAGTGTITGCCCAGGCCAATGACCAAATGGAATCCTCGACAGCTTGATCAGAGAGATGCGGCAGATGGGC  
CAGCCCTGTGATGCTTACCAGAAAAGGCTTCTTCAGCTCCAAGAGCAAATGCGAGCCCTTTATAAAGCCATCAGT  
GTCCCTCGAGTCCGCGAGGGCCAGCTCCAAGGGTGGTGGAGGCTACACTTGTGAGAGTGGCTCTGGCTGGGATGAG  
TTCACCAAACATGTCACCAGTGAATGTTGGGGTGGATGAGGCAGCAAAGGGCGGAGATGGACATGGTGGCCTGG  
GGTGTGGACCTGGCCTCAGTGGAGCAGCACATTAAACAGCCACCGGGGCATCCACAACCTCCATCGGCGACTATCGC  
TGGCAGCTGGACAAAATCAAAGCCGACCTGCGCGAGAAATCTGCGATCTACCAGTTGGAGGAGGAGTATGAAAAC  
CTGCTGAAAAGCGTCTTTGAGAGGATGGATCACCTGCGACAGCTGCAGAACATCATTACAGGCCACGTCCAGGGAG  
ATCATGTGGATCAATGACTGCGAGGAGGAGGAGCTGCTGTACGACTGGAGCGACAAGAACACCAACATCGCTCAG  
AAACAGGAGGCCCTTCTCCATACGCATGAGTCAACTGGAAGTTAAAGAAAAAGAGCTCAATAAGCTGAAACAAGAA  
AGTGACCAACTTGTCTCAATCAGCATCCAGCTTCAGACAAAATTGAGGCCTATATGGACACTCTGCAGACGCAG  
TGGAGTTGGATTCTTCAGATCACCAAGTGCATTGATGTTTCATCTGAAAGAAAATGCTGCCTACTTTTCAGTTTTT  
GAAGAGGCGCAGTCTACTGAAGCATACCTGAAGGGGCTCCAGGACTCCATCAGGAAGAAGTACCCCTGCGACAAG  
AACATGCCCCCTGCAGCACCTGCTGGAACAGATCAAGGAGCTGGAGAAAAGAACGAGAGAAAATCCTTGAATACAAG  
CGTCAGGTGCAGAACTTGGTAAACAAGTCTAAGAAGATTGTACAGCTGAAGCCTCGTAACCCAGACTACAGAAGC  
AATAAACCCATTATTCTCAGAGCTCTCTGTGACTACAAACAAGATCAGAAAATCGTGCATAAGGGGGATGAGTGT  
ATCCTGAAGGACAACAACGAGCGCAGCAAGTGGTACGTGACGGGCCCCGGGAGGCGTTGACATGCTTGTTCCTCT  
GTGGGGCTGATCATCCCTCCTCCGAACCCACTGGCCGTGGACCTCTCTTGCAAGATTGAGCAGTACTACGAAGCC  
ATCTTGGCTCTGTGGAACCAGCTCTACATCAACATGAAGAGCCTGGTGTCTTGGCACTACTGCATGATTGACATA  
GAGAAGATCAGGGCCATGACAATCGCCAAGCTGAAAACAATGCGGCAGGAAGATTACATGAAGACGATAGCCGAC  
CTTGAGTTACATTACCAAGAGTTTCATCAGAAATAGCCAAGGCTCAGAGATGTTTGGAGATGATGACAAGCGGAAA  
ATACAGTCTCAGTTTACCGATGCCCAGAAGCATTACAGACCTGGTTCATTACGCTCCCTGGCTATCCCCAGCAC  
CAGACAGTGACCACAACCTGAAATCACTCATGGAACCTGCCAAGATGTCAACCATAATAAAGTAATTGAAACC  
AACAGAGAAAATGACAAGCAAGAAACATGGATGCTGATGGAGCTGCAGAAGATTCGCAGGCAGATAGAGCACTGC  
GAGGGCAGGATGACTCTCAAAAACCTCCCTCTAGCAGACCAGGGGTCTTCTCACCACATCACAGTGAAAATTAAC  
GAGCTTAAGAGTGTGCAGAAATGATTACAAGCAATTGCTGAGGTTCTCAACCAGCTTAAAGATATGCTTGCCAAC  
TTCAGAGGTTCTGAAAAGTACTGCTATTTACAGAAATGAAGTATTTGGACTATTTAGAAAATGGAATAATCAAT  
GGTGTACAGATGGCTACTTAAATAGCTTATGCACAGTAAGGGCACTGCTCCAGGCTATTCTCCAAACAGAAGAC  
ATGTTAAAGGTTTATGAAGCCAGGCTCACTGAGGAGGAACTGTCTGCCTGGACCTGGATAAAGTGGAAGCTTAC  
CGCTGTGGACTGAAGAAAATAAAAAATGACTTGAACCTTGAAGAAGTCGTTGTTGGCCACTATGAAGACAGAACTA  
CAGAAAGCCCAGCAGATCCACTCTCAGACTTCACAGCAGTATCCACTTTATGATCTGGACTTGGGCAAGTTCCGGT  
GAAAAAGTCACACAGCTGACAGACCGCTGGCAAAGGATAGATAAACAGATCGACTTTAGATTATGGGACCTGGAG  
AAACAAATCAAGCAATTGAGGAATTATCGTGATAACTATCAGGCTTTCTGCAAGTGGCTCTATGATCGTAAACGC  
CGCCAGGATTTCCTTAGAATCCATGAAATTTGGAGATTCCAACACAGTCATGCGGTTTTTGAATGAGCAGAAGAAC  
TTGCACAGTGAAATATCTGGCAAACGAGACAAATCAGAGGAAGTACAAAAAATTGCTGAACCTTTGCGCCAATTCA  
ATTAAGGATTATGAGCTCCAGCTGGCCTCATACACCTCAGGACTGGAACTCTGCTGAACATACCTATCAAGAGG  
ACCATGATTTCAGTCCCTTCTGGGGTGATTCTGCAAGAGGCTGCAGATGTTTCATGCTCGGTACATTGAACTACTT  
ACAAGATCTGGAGACTATTACAGGTTCTTAAGTGAAGTGTGAGAGTTTGAAGATCTGAAGCTGAAAAATACC  
AAGATCGAAGTTTTTGAAGAGGAGCTCAGACTGGCCCGAGATGCCAACTCGGAAAACCTGTAATAAGAACAATTC  
CTGGATCAGAACCTGCAGAAATACCAGGCAGAGTGTTCCAGTTCAAAGCGAAGCTTGCGAGCCTGGAGGAGCTG  
AAGAGACAGGCTGAGCTGGATGGGAAGTCGGCTAAGCAAAATCTAGACAAGTGTACGGCCAAATAAAAGAACTC

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**FIGURE 367B**

AATGAGAAGATCACCCGACTGACTTATGAGATTGAAGATGAAAAGAGAAGAAGAAAATCTGTGGAAGACAGATTT  
GACCAACAGAAGAATGACTATGACCAACTGCAGAAAGCAAGGCAATGTGAAAAGGAGAACCTTGTTTGGCAGAAA  
TTAGAGTCTGAGAAAAGCCATCAAGGAGAAGGAGTACGAGATTGAAAGGTTGAGGGTTCTACTGCAGGAAGAAGGC  
ACCCGGAAGAGAGAATATGAAAATGAGCTGGCAAAGGTAAGAAACCACTATAATGAGGAGATGAGTAATTTAAGG  
AACAGTATGAAACAGAGATTAACATTACGAAGACCACCATCAAGGAGATATCCATGCAAAAAGAGGATGATTCC  
AAAAATCTTAGAAACCAGCTTGATAGACTTTCAAGGGAAAATCGAGATCTGAAGGATGAAATTGTCAGGCTCAAT  
GACAGCATCTTGACAGGCCACTGAGCAGCGAAGGCGAGCTGAAGAAAACGCCCTTCAGCAAAAGGCCTGTGGCTCT  
GAGATAATGCAGAAGAAGCAGCATCTGGAGATAGAACTGAAGCAGGTCATGCAGCAGCGCTCTGAGGACAATGCC  
CGGCACAAGCAGTCCCTGGAGGAGGCTGCCAAGACCATTACAGGACAAAAATAAGGAGATCGAGAGACTCAAAGCT  
GAGTTTCAGGAGGAGGCCAAGCGCCGCTGGGAATATGAAAATGAACTGAGTAAGGTAAGAAACAATTATGATGAG  
GAGATCATTAGCTTAAAAAATCAGTTTGAGACCGAGATCAACATCACCAAGACCACCATCCACCAGCTCACCATG  
CAGAAGGAAGAGGATACCAGTGGCTACCGGGCTCAGATAGACAATCTCACCCGAGAAAACAGGAGCTTATCTGAA  
GAAATAAAGAGGCTGAAGAACACTCTAACCCAGACCACAGAGAATCTCAGGAGGGTGGAAGAAGACATCCAACAG  
CAAAAGGCCACTGGCTCTGAGGTGTCTCAGAGGAAACAGCAGCTGGAGGTTGAGCTGAGACAAGTCACCTCAGATG  
CGAACAGAGGAGAGCGTAAGATATAAGCAATCTCTTGATGATGCTGCCAAAACCATCCAGGATAAAAAACAAGGAG  
ATAGAAAAGGTTAAAAACAATGATCGACAAAGAAACAAATGACCGGAAATGCCTGGAAGATGAAAACGCGAGATTA  
CAAAGGGTCCAGTATGACCTGCAGAAAGCAAACAGTAGTGCGACGGAGACAATAAACAACTGAAGGTTTCAGGAG  
CAAGAACTGACACGCCTGAGGATCGACTATGAAAGGGTTTTCCAGGAGAGGACTGTGAAGGACCAGGATATCAG  
CGGTTCCAGAACTCTCTGAAAGAGCTGCAGCTGCAGAAGCAGAAGGTGGAAGAGGAGCTGAATCGGCTGAAGAGG  
ACCGCGTCAGAAGACTCCTGCAAGAGGAAGAAGCTGGAGGAAGAGCTGGAAGGCATGAGGAGGTGCTGAAGGAG  
CAAGCCATCAAAAATCACCAACCTGACCCAGCAGCTGGAGCAGGCATCCATTGTTAAGAAGAGGAGTGAGGATGAC  
CTCCGGCAGCAGAGGGACGTGCTGGATGGCCACCTGAGGGAAGAGCAGAGGACCCAGGAAGAGCTGAGGAGGCTC  
TCTTCTGAGGTCGAGGCCCTGAGGCGGCAGTTACTCCAGGAACAGGAAAGTGTCAAACAAGCTCACTTGAGGAAT  
GAGCATTTCAGAAAGGCGATAGAAGATAAAAGCAGAAGCTTAAATGAAAGCAAAATAGAAATTGAGAGGCTGCAG  
TCTCTCACAGAGAACCTGACCAAGGAGCACTTGATGTTAGAAGAAGAACTGCGGAACCTGAGGCTGGAGTACGAT  
GACCTGAGGAGAGGACGAAGCGAAGCGGACAGTGA TAAAAATGCAACCATCTTGAACTAAGGAGCCAGCTGCAG  
ATCAGCAACAACCGGACCCCTGGAACCTGCAGGGGCTGATTAATGATTTACAGAGAGAGAGGGAAAATTTGAGACAG  
GAAATTGAGAAATTCCAAAAGCAGGCTTTAGAGGCATCTAATAGGATTCAGGAATCAAAGAATCAGTGTACTCAG  
GTGGTACAGGAAAGAGAGAGCCTTCTGGTGAATCAAAGTCTTGAGCAAGACAAGGCAAGGCTGCAGAGGCTG  
GAGGATGAGCTGAATCGTGCAAAATCAACTCTAGAGGCAGAAACCAGGGTGAAACAGCGCCTGGAGTGTGAGAAA  
CAGCAAATTCAGAATGACCTGAATCAGTGGAAGACTCAATATTCCCGCAAGGAGGAGGCTATTAGGAAGATAGAA  
TCGGAAGAGAAAAGAGTGAGAGAGAGAAGAACAGTCTTAGGAGTGAGATCGAAAGACTCCAAGCAGAGATCAAG  
AGAATTGAAGAGAGGTGCAGGCGTAAGCTGGAGGATTCTACCAGGGAGACACAGTCACAGTTAGAAACAGAACGC  
TCCCGATATCAGAGGGAGATTGATAAACTCAGACAGCGCCCATATGGGTCCCATCGAGAGACCCAGACTGAGTGT  
GAGTGGACCGTTGACACCTCCAAGCTGGTGTGTTGATGGGCTGAGGAAGAAGGTGACAGCAATGCAGCTCTATGAG  
TGTCAGCTGATCGACAAAACAACCTTGGACAACTATTGAAGGGGAAGAAGTCAGTGGAAGAAGTTGCTTCTGAA  
ATCCAGCCATTCTTCGGGGTGCAGGATCTATCGTGGAGCATCTGCTTCTCCTAAGGAAAAATACTCTTTGGTA  
GAGGCCAAGAGAAAAGAAATTAATCAGCCCAGAAATCCACAGTCATGCTTCTGGAGGCCCCAGGCAGCTACAGGTGGT  
ATAATTGATCCCCATCGGAATGAGAAGCTGACTGTGACAGTGCCATAGCTCGGGACCTCATTGACTTCGATGAC  
CGTCAGCAGATATATGCAGCAGAAAAAGCTATCAC TGGTTTTGATGATCCATTTTCAGGCAAGACAGTATCTGTT  
TCAGAAGCCATCAAGAAAAATTTGATTGATAGAGAAACCGGAATGCGCCTGCTGGAAGCCAGATTGCTTCAGGG  
GGTGTAGTAGACCCTGTGAACAGTGTCTTTTTGCCAAAAGATGTCGCCTTGGCCCGGGGGCTGATTGATAGAGAT  
TTGTATCGATCCCTGAATGATCCCCGAGATAGTCAGAAAAACTTTGTGGATCCAGTCACCAAAAAGAAGGTCAGT  
TACGTGCAGCTGAAGGAACGGTGCAGAATCGAACCACATACTGGTCTGCTCTTGCTTTTCAGTACAGAAGAGAAGC  
ATGTCCTTCCAAGGAATCAGACAACCTGTGACCGTCACTGAGCTAGTAGATTCTGGTATATTGAGACCGTCCACT  
GTCAATGAACTGGAATCTGGTCAGATTTCTTATGACGAGGTTGGTGAGAGAATTAAGGACTTCCTCCAGGGTTCA  
AGCTGCATAGCAGGCATATACAATGAGACCACAAAACAGAAGCTTGGCATTATGAGGCCATGAAAATTGCTTA  
GTCCGACCTGGTACTGCTCTGGAGTTGCTGGAAGCCCAAGCAGCTACTGGCTTTATAGTGGATCCTGTTAGCAAC

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**FIGURE 367C**

TTGAGGTTACCACTGGAGGAAGCCTACAAGAGAGGTCTGGTGGGCATTGAGTTCAAAGAGAAGCTCCTGTCTGCA  
GAACGAGCTGTCACTGGGTATAATGATCCTGAAACAGGAAACATCATCTCTTTGTTCCAAGCCATGAATAAGGAA  
CTCATCGAAAAAGGCCACGGTATTGCTTATTAGAAGCACAGATCGCAACCGGGGGGATCATTGACCCAAAGGAG  
AGCCATCGTTTACCACTTGACATAGCATATAAGAGGGGCTATTTCAATGAGGAACCTCAGTGAGATTCTCTCAGAT  
CCAAGTGATGATACCAAAGGATTTTTTGACCCCAACACTGAAGAAAATCTTACCTATCTGCAACTAAAAGAAAGA  
TGCATTAAGGATGAGGAAACAGGGCTCTGTCTTCTGCCTCTGAAAGAAAAGAAGAAACAGGTGCAGACATCACAA  
AAGAATACCCCTCAGGAAGCGTAGAGTGGTCATAGTTGACCCAGAAACCAATAAAGAAAATGTCTGTTTCAGGAGGCC  
TACAAGAAGGGCCTAATTGATTATGAAACCTTCAAAGAAGTGTGTGAGCAGGAATGTGAATGGGAAGAAATAACC  
ATCACGGGATCAGATGGCTCCACCAGGGTGGTCCTGGTAGATAGAAAGACAGGCAGTCAGTATGATATTCAAGAT  
GCTATTGACAAGGGCCTTGTGACAGGAAGTTCTTTGATCAGTACCGATCCGGCAGCCTCAGCCTCACTCAATTT  
GCTGACATGATCTCCTTGAAAAATGGTGTGCGGCACCAGCAGCAGCATGGGCAGTGGTGTGAGCGATGATGTTTTT  
AGCAGCTCCCGACATGAATCAGTAAGTAAGATTTCCACCATATCCAGCGTCAGGAATTTAACCATAGAGGAGCAGC  
TCTTTTTTCAGACACCCTGGAAGAATCGAGCCCCATGTCAGCCATCTTTGACACAGAAAACCTGGAGAAAATCTCC  
ATTACAGAAGGTATAGAGCGGGGCATCGTTGACAGCATCACGGGTGAGAGGCTTCTGGAGGCTCAGGCCTGCACA  
GGTGGCATCATCCACCCAACCACGGGCCAGAAGCTGTCACCTTCAGGACGCAGTCTCCCAGGGTGTGATTGACCAA  
GACATGGCCACCAGCGTGAAGCCTGCTCAGAAAGCCTTCATAGGCTTCGAGGGTGTGAAGGGAAAGAAGAAGATG  
TCAGCAGCAGAGGCAGTGAAGAAAAATGGCTCCCGTATGAGGCTGGCCAGCGCTTCTCGGAGTTCCAGTACCTC  
ACGGGAGGTCTTGTTGACCCGGAAGTGCATGGGAGGATAAGCACCGAAGAAGCCATCCGGAAGGGGTTTCATAGAT  
GGCCGCGCCGCACAGAGGCTGCAAGACACCAGCAGCTATGCCAAAATCCTGACCTGCCCCAAAACCAATTAAAA  
ATATCCTATAAGGATGCCATAAATCGCTCCATGGTAGAAGATATCACTGGGCTGCGCCTTCTGGAAGCCGCCTCC  
GTGTGCTCCAAGGGCTTACCCAGCCCTTACAACATGTCTTTCGGCTCCGGGGTCCCGCTCCGGCTCCCGCTCGGGA  
TCTCGCTCCGGATCTCGCTCCGGGTCCCGCAGTGGGTCCCGGAGAGGAAGCTTTGACGCCACAGGGAATTCTTCC  
TACTCTTATTCTACTCATTTAGCAGTAGTTCTATTGGGCACTAGTAGTCAGTTGGGAGTGGTTGCTATACCTTG  
ACTTCATTTATATGAATTTCCACTTTATTAAATAATAGAAAAGAAAATCCCGGTGCTTGAGTAGAGTGATAGGA  
CATTCTATGCTTACAGAAAATATAGCCATGATTGAAATCAAATAGTAAAGGCTGTTCTGGCTTTTTATCTTCTTA  
GCTCATCTTAAATAAGCAGTACACTTGGATGCAGTGCCTCTGAAGTGCTAATCAGTTGTAACAATAGCACAAATC  
GAACCTAGGATTTGTTTCTTCTTCTGTGTTTCGATTTTTGATCAATTCTTTAATTTTGAAGCCTATAATACA  
GTTTTCTATTCTTGGAGATAAAAAATTAAATGGATCACTGATATTTTAGTCATTCTGCTTCTCATCTAAATATTTT  
CATATTCTGTATTAGGAGAAAATTACCCTCCAGCACCAGCCCCCTCTCAAACCCCCAACCCAAAACCAAGCAT  
TTTGGAATGAGTCTCCTTTAGTTTCAGAGTGTGGATTGTATAACCCATATACTCTTCGATGTACTTGTGTTGGTTT  
GGTATTAATTTGACTGTGCATGACAGCGGCAATCTTTCTTTGGTCAAAGTTTTCTGTTTATTTTGCTTGTCTATA  
TTCGATGTACTTTAAGGTGTCTTTATGAAGTTTGCATTCTGGCAATAAACTTTTAGACTTTT

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**FIGURE 368**

MSCNGGSHPRINTLGRMIRAESGPDRLRYEVTSGGGGTSRMYYSRRGVITDQNSDGYCQTGTMSRHQNQNTIQELL  
QNCSDCLMRAELIVQPELKYGDGIQLTRSRELDECFAQANDOMEILDSLIREMRQMGQPCDAYQKRLQLQEQMR  
ALYKAISVPRVRRASSKGGGYYTCQSGSGWDEFTKHVTSECLGWMRQQRAEMDMVAVGVDLASVEQHINSHRGIH  
NSIGDYRWQLDKIKADLREKSAIYQLEEEYENLLKASFERMDHLRQLQNI IQATSREIMWINDCEEEELLYDWS  
KNTNIAQKQEAFSIRMSQLEVKEKELNKLKQESDQLVLNQHPASDKIEAYMDTLQTQWSWILQITKCIDVHLKEN  
AAYFQFFEEAQSTEAYLKGLQDSIRKKYPCDKNMP LQHLLQIKELEKEREKILEYKRQVQNLVNKSKKIVQLKP  
RNPDRSNKPIILRALCDYKQDQKIVHKGDECILKDNNERSKWYVTGPGGVMDLVPVGLIIPPPNPLAVDLCK  
IEQYEAAILALWNQLYINMKSLVSWHYCMIDIEKIRAMTIAKLKTMREQEDYMKTIADELEHYQEFIRNSQGSEMF  
GDDDKRKIQSQFTDAQKHQTLVIQLPGYPQHQTVTTEITHHGTCQDVNHNKVIETNRENDKQETWMLMELQKI  
RRQIEHCEGRMTLKNLPLADQGSSHHITVKINELKSVQNDQAIAEVLNQLKDMLANFRGSEKYCYLQNEVFGLF  
QKLENINGVTDGYLNSLCTVRALLQAILQTEDMLKVYEARTTEETVCLDLKVEAYRCGLKKIKNDLNLKKSLL  
ATMKTELQKAQQIHSQTSQQYPLYDLGLGFGKVTQLTDRWQRIDKQIDFRLWDLEKQIKQLRNYRDNYQAFCK  
WLYDRKRRQDSLES MKFGDSNTVMRFLNEQKNLHSEISGKRDKSEEVQKIAELCANSIKDYELQLASYTSGLETL  
LNIPIKRTMIQSPSGVILQEAADVHARYIELLTRSGDYRFLSEMLKSLEDLKLKNTKIEVLEEELRLARDANSE  
NCNKNKFLDQNLQKYQAEC SQFKAKLASLEELKRQAELDGKSAQNLDKCYGQIKELNEKITRLTYEIEDEKRRR  
KSVEDRFDQQKNDYDQLQKARQCEKENLWQKLESEKAIKEKEYEIERLRVLLQEEGTRKREYENELAKVRNHYN  
EEMSNLRNKYETEINITKTTIKEISMQKEDDSKNLRNQLDRLSRENRLKDEIVRLNDSILQATEQRRRAEENAL  
QQKACGSEIMQKQHLEIELKQVMQQRSEDNARHKQSLEEAAKTIQDKNKEIERLKAEFQEEAKRRWEYENELSK  
VRNNYDEEIIISLKNQFETEINITKTTIHQLTMQKEEDTSGYRAQIDNLTRENRLSEEIKRLKNTLTQTENLRR  
VEEDIQQQKATGSEVSQRKQQLLEVELRQVTQMRTEESVRYKQSLDDAAKTIQDKNKEIERLKQLIDKETNDRKCL  
EDENARLQRVQYDLQKANS SATETINKLVQEQLTRLRIDYERVSQERTVKDQDITRFQNSLQELQKQKVEE  
ELNRLKRTASEDSCKRKKLEEELEGMRSLKEQAIKITNLTQQLEQASIVKKRSEDDLQQRDVLGDHLEKQRT  
QEELRRLSSEVEALRRQLLEQESVKQAHLRNEHFQKAIEDKSRSLNESKIEIERLQSLTENLTKEHLMLEELR  
NLRLEYDDLRRGRSEADSDKNATILELRSQQLISNNRTLELQGLINDLQRERENLRQEIEKFQKQALEASNRIQE  
SKNQCTQVVQERESLLVKIKVLEQDKARLQRLLEDELNRAKSTLEAETRVKQRLCEKQQIQNDLNQWKTQYSRKE  
EAIKIESEREKSEREKNSLRSEIERLQAEIKRIEERCRRKLEDSTRETQSQLETERSRYQREIDKLQRPHYGSH  
RETQTECEWTVDTSKLVFDGLRKKVTAMQLYECQLIDKTTLDKLLKGKKS

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**FIGURE 369**

AGTCTTGGCGGAGGTGACCAAAGCCACGTAATGTCCGTAGTTCGCTCATCCGTCCATGCCAGATGGATTGTGGGG  
AAGGTGATTGGGACAAAAATGCAAAAGACTGCTAAAGTGAGAGTGACCAGGCTTGTTCTGGATCCCTATTTATTA  
AAGTATTTTAATAAGCGGAAAACCTACTTTGCTCACGATGCCCTTCAGCAGTGACAGTTGGGGATATTGTGCTT  
CTCAGAGCTTTACCTGTTCCACGAGCAAAGCATGTGAAACATGAACTGGCTGAGATCGTTTTCAAAGTTGGAAAA  
GTCATAGATCCAGTGACAGGAAAGCCCTGTGCTGGAACTACCTACCTGGAGAGTCCGTTGAGTTCGGAAACCACC  
CAGCTAAGCAAAAAATCTGGAAGAACTCAATATCTCTTCAGCACAGTGAAGCGGGAGTGGAAGAAGGATCTAAAGG  
GAAAAACTGACATGTTTATGTTATGGAAAAAGAAATTTTTCTAAGTTTCATCACAAACTGTGTCCAGTTTCTCTG  
TGGTGTTTATGAAATAGCTAAAAGCAAATGAAGTAAAGGGCATACTATGGTTTTTCACAAAAAAAAAAAAAAAAAA

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**FIGURE 370**

MSVVRSSVHARWIVGKVIQTKMQKTAKVRVTRLVLDPYLLKYFNKRKTYFAHDALQQCTVGDIVLLRALPVPRAK  
HVKHELAEIVFKVGKVIDPVTGKPCAGTTYLESPLSSETTQLSKNLEELNISSAQ

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**FIGURE 371**

CCAAGATGGCGGTGCTGTCAGCTCCTGGCCTGCGCGGCTTCGGATCCTTGGTCTGCGCTCCAGCGTGGGCCCCG  
CTGTGCAGGCACGAGGTGTCCATCAGAGCGTGGCCACCGATGGCCCAAGCAGCACCCAGCCTGCCCTGCCAAAGG  
CCAGAGCCGTGGCTCCCAAACCCAGCAGCCGGGGCGAGTATGTGGTGGCCAAGCTGGATGACCTCGTCAACTGGG  
CCCGCCGGAGTTCTCTGTGGCCCATGACCTTCGGCCTGGCCTGCTGCGCCGTGGAGATGATGCACATGGCAGCAC  
CCCGCTACGACATGGACCGCTTTGGCGTGGTCTTCGCGCCAGCCCGCGCCAGTCCGACGTCATGATCGTGGCCG  
GCACACTCACCAACAAGATGGCCCCAGCGCTTCGCAAGGTCTACGACCAGATGCCGGAGCCGCGCTACGTGGTCT  
CCATGGGGAGCTGCGCCAACGGAGGAGGCTACTACCACTATTCTACTCGGTGGTGAGGGGCTGCGACCGCATCG  
TGCCCGTGGACATCTACATCCCAGGCTGCCACCTACGGCCGAGGCCCTGCTCTACGGCATCCTGCAGCTGCAGA  
GGAAGATCAAGCGGGAGCGGAGGCTGCAGATCTGGTACCGCAGGTAGCGCCGCCGCCGCCGCCGCCGGAGCCTGT  
CGCCGTCTGTCCCCAGCCTGCTTGTGTCCCGTGAGGTTGTCAATAAACCTGCCCTCGGGCTGCCGCCAAAAAA  
AA



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**FIGURE 372**

MAVLSAPGLRGFRILGLRSSVGPAVQARGVHQSVA TDGPSSTQPALPKARAVAPKPSSRGEYV VAKLDDLNVNWAR  
RSSLWPMTFGLACCAVEMMHMAAPRYDMDRFGVVF RASPRQSDVMIVAGTLTNKMAPALRKVYDQMPEPRYV VSM  
GSCANGGGYYHYSYSVVRGCDRIVPVDIYIPGCPPTAEALLYGILQLQRKIKRERRLQIWYRR

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**FIGURE 373A**

ACTTGGCAAATCCGAAGATTTTCCGGGATCTTTCAAAGCCCATGGGGGCTCAGACCAAGGAAAGGAAGCTGAAAT  
TTATCCAGAGGTTTAAAGAAGTTGAGAAAAGTGAAGGAGACATGACTGTCCAGTGCCACTACTACACCCACTACT  
CCTCGGCCATCATCGTGGCCTCCTACCTGGTCCGGATGCCACCCTTACCCAGGCCCTTCTGCGCTTTGCAGGGCG  
GAAGCTTCGACGTGGCAGACAGAATGTTCCACAGTGTGAAGAGCACGTGGGAGTCGGCCTCCAGAGAGAACATGA  
GTGACGTGACGGGAGCTGACCCCAGAGTTCTTCTACCTGCCTGAGTTCTTAACCAACTGCAACGGGGTAGAGTTCTG  
GCTGCATGCAGGACGGGACTGTGCTAGGAGACGTGCAGCTCCCTCCCTGGGCTGATGGGGACCCTCGGAAATTCA  
TCAGCCTGCACAGAAAGGCCCTGGAAAGTGACTTTGTGAGTGCCAACTCCACCATTGGATAGACCTTATTTTTG  
GGTACAAGCAGCAGGGGCCAGCCGAGTGGATGCTGTTAATATCTTCCACCCCTACTTCTACGGTGACAGAATGG  
ACCTCAGCAGCATCACTGACCCCTCATCAAAGCACCATCCTGGGGTTTGTGACAACTTTGGACAGGTGCCCA  
AACAGCTCTTTACCAAACCTCACCAGCCAGGACTGCAGCAGGGAAGCCTCTGCCTGGAAAGGATGTCTCCACCC  
CCGTGAGCCTGCCTGGCCACCCACAGCCCTTTTTCTACAGCCTGCAGTCGCTGAGGCCCTCCAGGTACAGGTCA  
AAGGTGATTCCCTGGCCATGCATTGTTTGGTGTCTGTCCAGGGTTGTCCCTTCAGTGGCTGGGTTCTCTGGA  
GGTCCAGCACCATACCTGGGCAAAGTATTGGGGACTGACTTTGAATGGCTGCATCTCCAGTCACAGCCAGATT  
CTAGGGGGGTGTCTCTGGAAGTGTCTAGGAGCTCCTCTGTTAGACCTAACTTCTGAAGACCCACGTCTCT  
CTGTCTTTCTGTCTGTCTCTCTCACACACATACACACACAGACACCTCTTTCAGGCACACACACATCTCTCT  
CCTCTTCTCTCTTTTATACATGCACACACATGTACACACACATACCTTCTCTCTCAAGAGACCAGTGGAGA  
GTCCCAAGTTTACAAGGAAGGATTACAGCCTCTGTGCTTTGGCCACTGGTCTCTAAGCAGGGCAGGGGACTA  
AGCTAAGCACTCTAAGCAGGCAGCCAGTAGCTAAGAACATGTGCTCTGGGGCAGATGGCCCAGGAGTGCATTCCA  
GTCCTACTGCTTCTGACTGTGTGACCTTGGGCAAGCCATTGAACCTCCTTGTTCACGGGGATTGGAATAGCA  
TTGAATGGATGCTACTACAGATTGTATTGATGCTTAGATAAATGAGCCTGCAGAGAGTTGGTGAGGAAAAGATG  
AAAAACATGAGAAATAGGTTGAGCCAGTGAAGGGAGCCATGTGATTTAGGGAGGGAAGAGGGTCACTCTGGCCCT  
ATTATTGAGAAACAGTTCTTCCAGGGACCAGGGGCTCCTCAACAAGGCCAGTCAGCAAGAGCGCAATGAGATGGG  
CCACCTTCGGTGCCAGCACATAGTGGTGATTATTAGTCCATCTCTCTGACCATAATTCAGTGGCTTCTTGGC  
TGCCACCAAGGCTCAGAGAGGCTCTATAGAAGCAGGAGTCCACTGGGGTGGGGGTGGTTCCACTGGGGTGGGGT  
GGTCCCAACCAGCCCAGGAGGGAGGATCTCCAGATGGAAGCAGAAGAGAGGGTGAGGCTGGGTTCTAGGGCCA  
TGTATGTATGAAGTCGGGTGCCAGTGTCTGAGGACATGCACTGCCTTGGGGAAATCCCACTACACTGAACAA  
CATGCAGGTCCCAAGGAGTATGAAGTTAAGTTTTCAATGGTTTTAGTGGTGTCTTTTTATCCTTGAAGTCCAA  
GAACAGTGTCAATTGGCACACCCACCCCTGGTAGATAAGGTGCTACTGCTCTTGGCTCTGGGGACCATGCCTCCAT  
TTGCCCCAGGACTGGGGATCCGCTGCTGCATTGAAGTCCCTGGGCAGTCAGGCACAGCCCCTGCCCTCATGGAAA  
GGGACATGAGGTGCAAACCATCAACAGTAACAAGGGAGCTCAAATCTCCCATGTGGGCTCCAGGAGACTGATG  
CAGATCTTACCAGCCACGGGTCTTGGGGATCCTTCTGAGGCTCAGTTTCTTCATGTGTAAGGTATGGAAGACAA  
TGGCCCTGCCCTCAGGCTTGTGACAGTGCCATGAAGTGGTGTCTGTACACAGGCAGGCAACAAGCCAGCGCTGA  
GGCAGGAGTCTTGGCAGATGCTGGTGCCACTCCGAGCACACACACTGGGCCTTGCTTTAAGGGGCTGGCTTTAC  
TCTCTCCCTTTGATCTGAGCAGCCCCAGAAGGTAAGGGCCATTGATGCCACAGTCCCTTCCCTATGGGGAGAGAC  
ATCTCACAGTCTTATCCTGGAGCCTTTCCTGAATCCTGCTCCCTCTCTTCTCTCTGGGTGGTAGGGTCAGGAAGA  
GGGTGGTTCTCCCACTTCAACCAGCACAGGGCAAGGAAGGGAGTGGCCCCACCAGGAGGAAGGAAAGGCCCTTA  
CGTGGTGGGTATGGTGTGCACAGTCTTAGAACTAGGCTGGCCTCAGTGTTTTGAGTCAACAAGCTGCACCAGGC  
TCTGTGCCAGGGGACACACATTGAAAGGGGCATGGTTTTCTTACTCCATGGGAAGAGGCTAGGGTCTGAAGAGA  
TGGAATGACTTCAACCAGCATAACCAGACTTGGAATGAGGTCTGGGCAGCTCCAAATCCCGTGCTGTGAGCCATAT  
TCCAGCTGGGGCTGGGGGTGGCTCCAGAGTGGAGCTGAGGGAGGATGGGAATTGTGCCTCCCTGTGACTCCTGC  
CCCGGGGCCCCGGCTACAGTGGGTGCTGTCTTCTGTGCATAAGTTCAAGTCCAGTGTGTCTGCCTGTCACTCCTG  
CCCAGGGCCCAGCTGCAGTGGGTGCTGTCTTCCATGCTTAAGTTCAAGTCCAGTGTGTCTGCCTGTGACTCCTG  
CCTGGGGGCCAGCTGTAGTGGGTGCTGTTCTTCCATGCATAAGTTCGCCATACTAACTGGGGTGTAGATATGTA  
CCTCTTTTCTCTAGGCTCAGAGTCCCCCAAAGGGGCCATTGGCCACATTGTCTCTACTGAGAAGACCATTTCTGGC  
TGTAAGAGAGGAACAAAGTGCTGCTGCCCTCTCTGGAACAGGACCTTCAGCTGGGGCTTTGATGACTTCAGCTG  
CTGCTTGGGGAGCTACGGCTCCGACAAGGTCTGATGACATTCGAGAACCTGGCTGCCTGGGGCCGCTGTCTGTG  
CGCCGTGTGCCCATCCCCAACAACGATTGTACCTCTGGGACCAGCACTGTGGTGTGTGTGTGGGAGCTCAGCAT  
GACCAAAGGCCGCCCGAGGGGCTTGCCTCCGGCAGGCCTTGTATGGACACACACAGGCTGTACGTGCCTGGC

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**FIGURE 373B**

AGCGTCAGTCACCTTCAGCCTCCTGGTGAGCGGCTCCCAGGACTGCACCTGTATCCTGTGGGATCTGGACCACCT  
CACCCACGTGACCCGCCCTGCCCGCCCATCGGGAAGGCATCTCAGCCATCACCATCAGTGACGTCTCAGGCACCAT  
TGTCTCCTGTGCGGGAGCACACTTGTCCCTGTGGAATGTCAATGGACAGCCCCCTGGCCAGCATCACCACAGCCTG  
GGGCCCAGAAGGAGCCATAACCTGCTGCTGCCTGATGGAGGGCCCAGCATGGGACACAAGCCAGATCATCATCAC  
CGGGAGTCAAGACGGCATGGTCCGGGTTTGGAAGACTGAGGATGTGAAGATGTCTGTTCCCTGGACGGCCAGCAGG  
AGAGGAGCCCCCGGCTCAGCCTCCAAGCCCAAGAGGCCACAAGTGGGAGAAGAACCTGGCCTTGAGTCGAGAGCT  
GGACGTTAGCATTGCTTTGACAGGGAAGCCAGCAAAACCAGCCCCGCAGTGACTGCTCTGGCCGTGTCCAGAAA  
CCACACCAAACCTCCTGGTTGGTGATGAGAGGGGGAGAATATTCTGCTGGTCTGCAGATGGGTAGGAAGAGAGAGG  
CAGCAGAGGCTCTGGCACAAACAGTGCCAGGCTGAGGGTGGCAGAGGTGACTGGGGCCTGAGCTCTGCCTACAGAA  
GAAACCCCCAGGGCCTCCTTCCCCACAGTTCTCAAGGAAGGGCCTCTGGCAATCACAGCTCTGCAGCCCAACCCT  
CTCCATGGCCGATGGGACTTCTATGAAAAGGATGAGCACACACACTCGGAGGGCTGAGCAGCACGCTGGAAACTG  
TGACTTGGTGATGCCAGCTGCACACGAAATTACACATGACTCACCTTATTAAGGGCTATTGCACTGAAAAAAAA  
AAAAGATGGGTCGCTTACTGGAAATTATTGTATTGCTTTATTTTATTAAAGCAACTATGTTTTAAATGC

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**FIGURE 374**

TTCGAATGAATGGGAAGACACGGTTGATGCAGTGGAGAGACATGTTTGACATTGCAGTTAAATGGAGAAGGATTG  
CTGACCCAGACCAGCCCGTGTGTGGTTAGATCAAATGCCAGCACGAAGTCTTAGCAGAGGTTTTAAACAACCACA  
TTAATTTAATCAGGGGTCAGGTGATCAACATGAGATACCTAGAATATTTTGAGAAAATACTTCATTTTATTAAAG  
ACAGAATTCTTGTITATCATGGAGCTAATAATCCTAAAGGATTGCTGGAAGTTCGGGAAGCCCTGGAAAAGGTAC  
ACAAAGTAGAAGACCTTCTTCCGATTATGAAGCAGTTTAATACTAAAACGAAGGATGGGTTACCGTGAACACAA  
AAGTTCCAGCCTTAAAGACCAAGGGAAGGAATATGATGGATTACAAATCACGATTACAGGAGACAAAGTTGGCA  
ATATATTATTTTCTGTGAAAACCTCAAACCACGGAAGAAAGGACACAATTATATCATGCTGAAATAGATGCACTTT  
ATAAAGATTTGACAGCAAAAGGAAAAGTATTGATTCTTTCATCAGAATTTGGGGAGGCTGATGCTGTCTGCAACT  
TAATCTTATCCCTTAGTTTATTACTTTTATAATTTAATGCCACTCTCTCGAGGATCCAGTGTAATTGCTTACTCGG  
TCATCGTGGGAGCACTGATGGCAAGTGGAAAAGAAGTAGCAGGAAAAATTCCCAAAGGGAAGTTAGTCGACTTTG  
AAGCTATGACAGCCCTGTTTCAGAGGCCTTTAGCAAAGTCGCCAAAAGCTGGATGAACCTGAAAAGTATTTTAC  
CTTCTTATAAGACTCTTCCATCAGTTTCAGAAACGTTTCCAACGTTAAGATCGATGATTGAGGTGCTAAACACAG  
ACTCTTCTCCACGTTGTCTTAAGAAACTCTAGTTCTGCTGCTGTATTTTATACAAGTAAAGGGCCGACCTCTTGC  
TTCTTAAGTTATTTCTTAAACATGGAATTATAAAGAAATTAGGTCCTCTATTACTTTTGATACCAATTTTTATA  
GGAATTGAATACTTGAAATCATTTTCTTTACTTTTCTGAACCATAATGAAAATCATGAAAGAGGCTTTTCGGGGG  
AAAAAGCTACTTGACTTGAGGGGAAAGCGTATGTATTAGCCGGCAGCCTGTTGGTTCCCACTTATAAAGTCATAT  
AACTCCTTCCTTACAGTAAAAAAATTTTCTCAACAATAAATACTGAAGATGAACAAAAACAAACC  
AAATAGGAGTGTTTGTATTCCTTTAGAGATCTGGATATTTTTCAAAGACTTGCTTTTACGCACATTGTGATAGA  
GCATCTTTTGTGACTCACGTAACCTCCATGTGTGGTCTTTGTTTTATTAGAACCATGGAAGAAGGTTCTTG  
GCCATCAGTATGTGTTGCAGAGCTCACAGCCAGGAACACTTATTTTGAACAATGCAGACAGTACTTGCCAGAGTC  
CCAAATGCTGAATTATTGAACCATGTTTTTTTTTCTTTGTTGAAAAAATAAACCAGGGTGATTTCTATAAATC  
ACCAGTTTTTGGCATTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 375**

MNGKTRLMQWRDMFDIAVKWRRADPDQPVLWLDQMPARSLSRGFNNHINLIRGQVINMRYLEYFEKILHFIKDR  
ILVYHGANNPKGLLEVREALEKVHKVEDLLPIMKQFNTKTKDGFTVNTKVPSLKDQGKEYDGFTITITGDKVGNI  
LFSVETQTTEERTQLYHAEIDALYKDLTAKGKVLILSSEFGEADAVCNLILSLVYYFYNLMPLSRGSSVIAYSVI  
VGALMASGKEVAGKIPKGLVDFEAMTAPGSEAFSKVAKSWMNLKSISPSYKTLPSVSETFPTLRSMIEVLNTDS  
SPRCLKKL

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**FIGURE 376**

GTGCCAACAAACCCCTGAACAGAGGAGGTGGCGGTGGTGGCCCTCGCCTGTGGCCCCCGTGCTGCTTGCACTCGA  
ACTCGTCGCCATGGAGGAGCTCCAGGAGCCTCTGAGAGGACAGCTCCGGCTCTGCTTCACGCAAGCTGCCCGGAC  
TAGCCTCTTACTGCTCAGGCTCAACGACGCTGCCCTGCGGGCGCTGCAAGAGTGTACAGCGGCAACAGGTACGGCC  
GGTGATTGCTTTCCAAGGCCACCGAGGGTATCTGAGACTCCCAGGCCCTGGTTGGTCCCTGCTCTTCTCCTTCAT  
AGTGTCCAGTGTGTGTCAGGAGGGCGCTGGTGGTAGCTTGACCTTGTTGTGCCAACGCTTCCTCAGGTCTGGGCC  
TAACAGCCTCCACTGCCTGGGCTCACTCAGGGAGCGCCTCATTATTTGGGCAGCCATGGATTCTATCCCAGCCCC  
ATCATCAGTTTCAGGGACACAACCTGACTGAAGATGCCAGACATCCTGAGAGTTGGCAGAACACAGGAGGCTATTC  
TGAAGGAGATGCAGTATCACAGCCACAGATGGCAC TAGAGGAGGTGTCAGTGTACAGATCCACTGGCAAGCAACCA  
AGGACAGTCACTCCCAGGATCCTCAAGGGAGCACATGGCACAGTGGGAAGTGAGAAGCCAGACCCATGTTCCAAA  
CAGAGAACCTGTTCAGGCACTGCCTTCCTCTGCCAGCCGAAACGTCTGGACAAGAAACGTTCACTGCCTGTAGC  
CACTGTAGAAGTGAAGAAAAGAGGTTTCAGAACTCTGCCTTTAGTGCCAAGCCCCCTACAAGGCCTGACCAATCA  
GGATTTACAAGAGGGAGAAGATTGGGAGCAAGAAGATGAGGACATGGACCCCAGATTAGAACACAGTTCCTCAGT  
TCAAGAAGATTCTGAATCCCCAAGTCCTGAAGATA TACCAGACTACCTCCTGCAATACAGGGCCATCCACAGTGC  
AGAACAGCAACATGCCTATGAGCAGGACTTTGAGACAGATTATGCTGAATACCGCATCCTGCATGCCCGTGTGG  
GACTGCAAGCCAAAGGTTTCATAGAGCTGGGAGCAGAGATTAAGAGGTTTCGGCGAGGAACTCCAGAATACAAGGT  
CCTGGAAGACAAGATAATCCAGGAATATAAAAAGTTTCAGGAAGCAGTACCCAAGTTACAGAGAAGAAAAGCGTCG  
CTGTGAGTACCTTCACCAGAAATTGTCCACATTAAAGGTCTCATCCTGGAGTTTGAGGAAAAGAACAGGGGCAG  
CTGAAGTTATCAAGGGAATTTTGTAGCCTCTGCTTAGTGAAACACAAAGGAACAAAGCAGCTATAAACTAAATAG  
AATGCAACTATCTGCTTTTCTTATGCTGACCACTGGAGTCCATGGTGGCAAGTAGAGAGCTGCTCTAGGTTCTTG  
AGGTTTGGTTTTTATTATTAATTTTTAGGGTATGGGCACTGTGCAAAGACTCCATAGCTGTGCCTAGGAGTCTAG  
GAAAAGTGACAGAGGCTTGGCTTTTTTACCTTTAGTTTCAGCCAAGTCATTTTCAAGTCCTGAGAAATGACATCAT  
CTTCAGGATAAAATAATGAGGACATTAGACAAACCAAACTAAGTGAATTTTAGCCTGGTAGCCTCTCTAAGGAAA  
CAGTAATAATAACTTCTGATAAGAGTTAAAAGAAC TTGTAGCATACTGGATATAATGGGAAAGGGCCTGGGTGT  
TACCCATGTACTGAAAATGAACTTTTACCAACATGGCTAAAAAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 377**

MEELQEPLRGQLRLCFTQAARTSLLLLRLNDAALRALQECQRQQVRPVIAFQGHARGYLRLPGPGWSC LFSFIVSQ  
CCQEGAGGSLDLVCQRFLRSGPNSLHCLGSLRERLIIWAAMDSIPAPSSVQGHNLTEDARHPESWQNTGGYSEGD  
AVSQPQMALEEVSVSDPLASNQGQSLPGSSREHMAQWEVRSQTHVPNREPQALPSSASRKRLDKKRSVPVATVE  
LEEKRFRTLPLVPSP LQGLTNQDLQEGEDWEQEDEDMDPRLEHSSSVQEDSESPSPEDIPDYLLQYRAIHSAEQQ  
HAYEQDFETDYAEYRILHARVGTASQRFIELGAEIKRVRRGTPEYKVLEDKIIQEYKKFRKQYPSYREEKRCEY  
LHQKL SHIKGLILEFEEKNRGS

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**FIGURE 378**

GGGCTTCGTGTTCTGGGTGCTGACCGTGCACTCCCCGCCGCCGAGGACTTAGAGCTCTGGAAGTAGCTCTCCA  
GCTTCCTTCGTACTCGGGGGCCGGACTTGTACACCCGCACGAGGAGCGGGGACGGCGGGCGCAGAAGTGGGCCAC  
CATATCTGGAAACTACAGTCTATGCTTTGAAGCGCAAAGGGAATAAACATTTAAAGACTCCCCGGGGACCTGG  
AGGATGGACTTTTCCATGGTGGCCGGAGCAGCAGCTTACAATGAAAAATCAGGTAGGATTACCTCGCTCTCACTC  
TTGTTTCAGAAAAGTCTTTGCTCAGATCTTTCCTCAGTGGAGAAAAGGGGAATACAGAAGAATGTCTCCCTACAAG  
TGCTCAGAGACTGGTGCTCTTGAGAGAAAACATATAGTTGGCAAATTTCCATTAAACCACAATGACTTCAAAATTTTA  
AAAAATAATGAGCGTCAGCTGTGTGAAGTCTCCAGAATAAGTTTGGCTGTATCTCTACCCTGGTCTCTCCAGTT  
CAGGAAGGCAACAGCAAATCTCTGCAAGTGTTCAGAAAAATGCTGACTCCTAGGATAGAGTTATCAGTCTGGAAA  
GATGACCTCACCACACATGCTGTTGATGCTGTGGTGAATGCAGCCAATGAAGATCTTCTGCATGGGGGAGGCCTG  
GCCCTGGCCCTGGTAAAAGCTGGTGGATTTGAAATCCAAGAAGAGAGCAAACAGTTTGTGGCAGATATGGTAAA  
GTGTCAGCTGGTGAGATAGCTGTCACGGGAGCAGGGAGGCTTCCCTGCAAACAGATCATCCATGCTGTTGGGCCT  
CGGTGGATGGAATGGGATAAACAGGGATGTACTGGAAAGCTGCAGAGGGCCATTGTAAGTATTCTGAATTATGTC  
ATCTATAAAAAATACTCACATTAAGACAGTAGCAATTCAGCCTTGAGCTCTGGGATTTTTCAGTTCCCTCTGAAT  
TTGTGTACAAAGACTATTGTAGAGACTATCCGGGTAGTTTGCAAGGGAAGCCAATGATGAGTAATTTGAAAGAA  
ATTCACCTGGTGAGCAATGAGGACCCTACTGTTGCTGCCTTTAAAGCTGCTTCAGAATTCATCCTAGGGAAGAGT  
GAGCTGGGACAAGAAACCACCCCTTCTTTCAATGCAATGGTTCGTGAACAACCTGACCCCTCAGATTGTCCAGGGC  
CACATTGAATGGCAGACGGCAGATGTAATTGTTAATTCTGTAAACCCACATGATATTACAGTTGGACCTGTGGCA  
AAGTCAATTCTACAACAAGCAGGAGTTGAAATGAAATCGGAATTTCTTGCCACAAAGGCTAAACAGTTTCAACGG  
TCCAGTTGGTACTGGTCACAAAAGGATTTAACTTGTCTGTAAATATATATACCATGTACTGTGGCATTACAGAA  
TTTCTTAAACCTCAGATATTAAAACATGCAATGAAGGAGTGTGTTGGAATAATGCATTGAGCAAAATATACTTCC  
ATTTCTTTCTGCCCCTTGGGACTGGAAACATGGAAATAAAGAAGGAAACAGCAGCAGAGATTTTGTGTTGATGAA  
GTTTTAACATTTGCCAAAGACCATGTAAAACACCAGTTAACTGTAAATTTGTGATCTTTCCAACAGATTTGGAG  
ATATATAAGGCTTTTCAGTTCTGAAATGGCAAAGAGGTCCAAGATGCTGAGTTTGAACAATTACAGTGTCCCCCAG  
TCAACCAGAGAGGAGAAAAAGAGAAAATGGGCTTGAAGCTAGATCTCCTGCCATCAATCTGATGGGATTCAACGTG  
GAAGAGATGTGTGAGGCCCACGCATGGATCCAAAGAATCCTGAGTCTCCAGAACCACCACATCATTGAGAATAAT  
CATATTCTGTACCTTGGGAGAAAGGAACATGACATTTTGTCTCAGCTTCAGAAAACCTCAAGTGTCTCCATCACA  
GAAATTATCAGCCCAGGAAGGACAGAGTTAGAGATTGAAGGAGCCCCGGGCTGACCTCATTGAGGTGGTTATGAAC  
ATTGAAGATATGCTTTGTAAAGTACAGGAGGAAATGGCAAGGAAAAAGGAGCGAGGCCTTTGGCGCTCGTTAGGA  
CAGTGGACTATTACAGCAACAAAAACCCAAGACGAAATGAAAGAAAATATCATATTTCTGAAATGTCCGTGTGCCT  
CCAACCTCAAGAGCTTCTAGATCAAAAAGAAACAGTTTGAAAAATGTGGTTTGCAGGTTCTAAAGGTGGAGAAGATA  
GACAAATGAGGTCCCTTATGGCTGCCTTTCAAAGAAAGAAGAAAATGATGGAAGAAAACTGCACAGGCAACCTGTG  
AGCCATAGGCTGTTTCAGCAAGTCCCATACCAAGTTCTGCAATGTGGTATGCAGAGTTGGCTTTCAAAGAATGTAC  
TCGACACCTTGCGATCCAAAATACGGAGCTGGCATATACTTCACCAAGAACCTCAAAAACCTGGCAGAGAAGGCC  
AAGAAAATCTCTGCTGCAGATAAGCTGATCTATGTGTTTGAAGGCTGAAGTACTCACAGGCTTCTTCTGCCAGGGA  
CATCCGTTAAATATTGTTCCCCCACCCTGAGTCTGGAGCTATAGATGGTCATGACAGTGTGGTTGACAATGTC  
TCCAGCCCTGAAACCTTTGTTATTTTGTAGTGGCATGCAGGCTATACCTCAGTATTTGTGGACATGCACCCAGGAA  
TATGTACAGTCACAAGATTACTCATCAGGACCAATGAGACCCTTTGCACAGCATCCTTGGAGGGGATTTCGCAAGT  
GGCAGCCCTGTTGATTAACTCTCTACATCATTTTAAACAGCTGGTATGGCCTTACCTTGGGTGAACTAACCAATAA  
TGACCATCGATGGCTCAAAGAGTGGCTTGAATATATCCCATGGGTTATCTGTATGGACTGACTGGGTATTGAAA  
GGACTAGCCACATACTAGCATCTTAGTGCCCTTTATCTGTCTTTATGTCTTGGGGTTGGGGTAGGTAGATACCAA  
TGAAACACTTTTCAGGACCTTCCCTTCTTGCAGTTGTTCTTTAATCTCCTTTACTAGAGGAGATAAATATTTTG  
CATATAATGAAGAAATTTTTCTAGTATATAACGCAGGCCTTTTATTTTCTAAATGATGATAGTATAAATATGTT  
AGGATAACAGAATGATTTTAGATTTTCCAGAGAATATTATAAAGTGCTTTAGGTATGAAAATAAATCATCTTTGT  
CTGATTAAAAA



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**FIGURE 379**

MDFSMVAGAAAYNEKSGRITSLSLLFQKVFAQIFPQWRKGNTTEECLPYKCSETGALGENYSWQIPINHNDFKILK  
NNERQLCEVLQNKFGCISTLVSPVQEGNSKSLQVFRKMLTPRIELSVWKDDLTHAVDAVVNAANEDLLHGGGLA  
LALVKAGGFIEIQEESKQFVARYGKVSAGEIAVTGAGRLPCKQIIHAVGPRWMEWDKQGCTGKLQRAIVSILNYVI  
YKNTHIKTVAIPALSSGIFQFPLNLCTKTIVETIRVSLQGKPMMSNLKEIHLVSNEEDPTVAAFKAASEFILGKSE  
LGQETTPSFNAMVVNNLTQIVQGHIEWQTADVIVNSVNPHTITVGPVAKSILQQAGVEMKSEFLATKAKQFORS  
QLVLVTKGFNLFCKYIYHVLWHSEFPKPQILKHAMKECLEKCIEQNITSISFPALGTGNMEIKKETAAEILFDEV  
LTFAKDHVKHQLTVKFVIFPTDLEIYKAFSSEMAKRSKMLSLNNYSVPQSTREEKRENGLEARSPAINLMGFNVE  
EMCEAHAWIQRILSLQNHIIENNHILYLGRKEHDI LSQ LQKTSSVSITEIISPGRTELEIEGARADLIEVVMNI  
EDMLCKVQEEMARKKERGLWRS LGQWTIQQKTQDEMKENIIFLKCPVPPTQELLDQKKQFEKCGLQVLKVEKID  
NEVLMAAFQRRKKMMEEKLHRQPVSHRLFQQVPYQFCNVVCRVGFQRMYSTPCDPKYGAGIYFTKNLKNLAEKAK  
KISAADKLIYVFEAEVLTGFFCQGHPLNIVPPPLSPGAIDGHDSVVDNVSSPETFVIFSGMQAIPQYLWTCTQEY  
VQSQDYSSGPMRPFQAHPWRGFASGSPVD

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**FIGURE 380**

AAGCAATTAACAAAGAAGGAACATTTACAGTTCAGTTTTATGATGGAGTAATTCAGTTGTTTAAAAAGAATGCAC  
ATTAAAGCCATGCCCCGAGGATGCTAAGGGGCAGGTGAAATCCCAGCATCCACTAAGCTGGTGTTGTCCTATCGAC  
CCAGCTGGATCGTGTAACCAAGTCTATGGGAAGTGAGGATTGGATAGCTTTAGTCAAAGCAGCTGCTGCAGCTGCA  
GCCAAGAACAAAACAGGGAGTAAACCTCGAACCAGCGCTAACAGCAATAAAGATAAGGATAAAGATGAGAGAAAG  
TGGTTTAAAGTACCTTCAAAGAAGGAGGAACTTCAACTTGTATAGCCACACCAGACGTAGAGAAGAAGGAAGAT  
CTGCCTACATCTAGTGAAACATTTGGACTTCATGTAGAGAACGTTCCAAAGATGGTCTTTCCACAGCCAGAGAGC  
ACATTATCAAAACAAGAGGAAAAATAATCAAGGCAACTCGTTTTAGGCAAAGAGAGCTCGACTTAACAAGATTACT  
GGTTTGTGGCATCCAAAGCTGTTGGGGTTGATGGTGCTGAAAAAAGGAAGACTACAATGAAACAGCTCCAATG  
CTGGAGCAGGCGATTTACCTAAACCTCAAAGTCAGAAAAAAATGAAGCTGACATTAGCAGTTCTGCCAACACT  
CAGAAACCTGCACTGTTATCCTCAACTTTGCTTCAGGGAAGGCTCGCAGCAAGAAATGCAAACATGAATCTGGA  
GATTCTTCTGGGTGTATAAAACCCCTAAATCACCACCTTTCCCCAGAATTAATACAAGTCGAGGATTTGACGCTT  
GTATCTCAGCTTTCTTCTTCAGTGATAAATAAAACTAGTCCTCCACAGCCTGTGAATCCCCCTAGACCTTTCAAG  
CATAGTGAGCGGAGAAGAAGATCTCAGCGTTTAGCCACCTTACCCATGCCTGATGATTCTGTAGAAAAGGTTTCT  
TCTCCCTCTCCAGCCACTGATGGGAAAGTATTCTCCATCAGTTCTCAAATCAGCAAGAATCTTCAGTACCAGAG  
GTGCCTGATGTTGCACATTTGCCACTTGAGAAGCTGGGACCCTGTCTCCCTCTTGACTTAAGTCGTGGTTCAGAA  
GTTACAGCACCGGTAGCTCAGATTCCTCTTACCGTAATGAATGTCCCAGGGCAGAAAAAGAGGATACACAGATG  
CTTCCAAATCCTTCTTCCAAAGCAATAGCTGATGGAAGAGGAGCTCCAGCAGCAGCAGGAATATCGAAAACAGAA  
AAAAAAGTGAAATTGGAAGACAAAAGCTCAACAGCATTGGTATCAGGAGTTGGGATTTCTCAGCACTGCTAATG  
AAGATCCCCCTCTTATAGTCCAATAAGCTTATCAGGACTTCAGAGTCATGCATGAACAGTTTAATTGAACCCAT  
CCACTCTGGGCAGGTGACTGGAATAGCTGATTAACATAAATGCTGCTTTTAGGTTAACCACAAAGGAACAACCT  
CAGGATCAGTCGTGATTGCTAAAGTATTCACTTTTATCTTTTAGGTAAGAGAAAAAGAAAAAGATAAGGAAAGAAG  
AGAGAAGAGAGACAAAGATCACTACAGACCAAAACAGAAGAAGAAGAGGCACCTCTGGTACTGAAGATTCCTGCT  
GATTTTGAGAACTGGATGGAGAATACTTTCCCATCAGGGGCTGGAGAGGGAGAAGAAACCTTTTTCTACAGAATC  
ATCAGGCATGGGTAAGGTGGCTAACGCTGAGATCTCTT

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**FIGURE 381**

MHIKAMPEDAKGQVKSQHPLSWCCPIDPAGSCNQSMGSEDWIALVKAAAAAAKNKTGSKPRTSANSNKDKDKDE  
RKWFKVPSKKEETSTCIATPDVEKKEDLPTSETFGLHVENVPKMVFPQPESTLSNKRKNNQNSFQAKRARLNK  
ITGLLASKAVGVDGAEEKEDYNETAPMLEQAISP KPQSQKKNEADISSANTQKPALLSSTLSSGKARSKKCKHE  
SGDSSGCIKPPKSPLSPELIQVEDLTLVSQLSSSVINKTSPQPVPNPPRPFKHSERRRRSQRLATLPMPPDDSVK  
VSSPSPATDGKVFSISSQNQQESSVPEVPDVAHLPLEKLGPCLPDLDSRGSEVTAPVASDSSYRNECPRAEKEDT  
QMLPNPSSKAIADGRGAPAAAGISKTEKKVKLEDKSSTAFGIRSWDFSALLMKIPSYSPISLSGLPES

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**FIGURE 382**

GGGGGAAGATGCGCGACGTGCTTAGCGTCTGCGACAGTACAACATCCAGAAGAAGGAGATTGTGGTGAAGGGAG  
ACGAAGTGATCTTCGGGGAGTTCTCCTGGCCCAAGAATGTGAAGACCAACTATGTTGTTTGGGGGACTGGAAAGG  
AAGGCCAACCCAGAGAGTACTACACATTGGATTCCATTTTATTTCTACTTAATAACGTGCACCTTTCTCATCTG  
TTTATGTCCGACGTGCAGCTACTGAAAATATTCCTGTGGTTAGAAGACCTGATCGAAAAGATCTACTTGGATATC  
TCAATGGTGAAGCGTCAACATCGGCAAGTATAGACAGAAGCGCTCCCTTAGAAAATAGGTCTTCAGCGATCTACTC  
AAGTCAAACGAGCTGCAGATGAAGTTTTAGCAGAAGCAAAGAAACCACGAATTGAGGATGAAGAGTGTGTGCGCC  
TTGATAAAGAGAGATTGGCTGCCCGTTTTGGAGGGTCAAAAGAAGGGATTGTACAGACTGAACAGATTAGGTCTT  
TGTCTGAAGCTATGTCACTGGAATAAATTGCTGCAATCAAAGCCAAAATTATGGCTAAGAAAAGATCTACTATCA  
AGACTGATCTAGATGATGACATAACTGCCCTTAAACAGAGGAGTTTTGTGGATGCTGAGGTAGATGTGACCCGAG  
ATATTGTCAGCAGAGAGAGAGTATGGAGGACACGAACAACATCTTACAAAGCACAGGAAAGAATTTTTCCAAGA  
ACATTTTTGCAATCTTCAATCTGTAAAAGCCAGAGAAGAAGGGCGTGCACCTGAACAGCGACCTGCCCAAATG  
CAGCACCTGTGGATCCCACTTTGCGCACCAACAGCCTATCCAGCTGCCTATAACAGATACGATCAGGAAAGAT  
TCAAAGGAAAAGAAGAAACGGAAGGCTTCAAATTTGACACTATGGGAACCTACCATGGTATGACACTGAAATCTG  
TAACGGAGGGTRCATCTGCCCGGAAGACTCAGACTCCTGCAGCCAGCCAGTACCAAGACCAGTTTCTCAAGCAA  
GACCTCCCCCAAATCAGAAGAAAGGATCTCGAACACCCATTATCATAATTCCTGCAGCTACCACCTCTTTAATAA  
CCATGCTTAATGCAAAGACCTTCTACAGGACCTGAAATTTGTCCCATCAGATGAAAAGAAGAAACAAGGTTGTC  
AACGAGAAAATGAACTCTAATACAAAGAAGAAAAGACCAGATGCAACCAGGGGGCACTGCAATTAGTGTTACAG  
TACCTTATAGAGTAGTAGACCAGCCCCTTAACTTATGCCTCAAGACTGGGACCGCGTTGTAGCCGTTTTTGTGC  
AGGGTCTGCATGGCAGTTCAAAGGTTGGCCATGGCTTTTGCCTGATGGATCACCAGTTGATATATTTGCTAAAA  
TTAAAGCCTTCCATCTGAAGTATGATGAAGTTCGTCTGGATCCAAATGTTGAGAAATGGGATGTAACAGTATTAG  
AACTCAGCTATCACAAACGTCATTTGGATAGACCAGTGTTCTTACGGTTTTTGGGAAACATTGGACAGGTACATGG  
TAAAGCATAAATCGCACTTGAGATTCTGAATTATTTGGCTCCTCCATTTCTGGAAATTGAGACTCAAGCTTTATG  
AATTTATCAAGAACTTAAAAATGAAGAAGGTCACAGATTGATCTTTTATAAGACCTTATTTGATGCTTTGTGCTT  
CAAGGAGATGATACCTGTCATCCATATAAGCAAACTTTTTGGCTTACAACATTTTTTTAATATTAGCCTTCTAG  
TCTGTAATGGAAATTGTATATTTTGATAGAAGTTTTTCTCCATTGGTTAAATTAGCATTACTTAAAATTTGTTT  
CTTTAGAAAATAAATGCAGGTTATAAATGTGTGTAATTTAGAGATTATAAGGCTCTCTGAGCCATCTTCTGATT  
TTTCATTGCTCTATAATTCTTTTTACTGAAAATACATATGTTATGAATGGTATTAAATTTTAGTCTCTGGAACATC  
CAAAACCAAGCAAAGGGATGTGACTATTTTGAATGAATCAGAATGTCAACTTGATGTACACTATATCTACACTT  
ACTCATTATTTAAAAAGAATAATGAAAAATCTAGATCAATTCTTCAATTTGATTGAACTGTTGAGCCTTTTCAAG  
ATTTCTTTATTTACAAATGATTACATTTAAATGAATGTACATTCTCTCACTGACTTTGGTGATTTTGAAACCTA  
GAATGATGTGTTTCTATCTGTAATATCTTTCCATTTGAAAAAATCTCAAAACACAGATTAAACCAC

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**FIGURE 383**

MADVLSVLRQYNIQKKEIVVKGDEVIFGEFSWPKNVKTNYVVWGTGKEGQPREYYTLDSILFLLNNVHLSHPVYV  
RRAATENIPVVRPDRKDLLGYLNGEASTSASIDRSAPLEIGLQRSTQVKRAAEVLAEAKKPRIEDEECVRLDK  
ERLAARLEGHKEGIVQTEQIRSLSEAMSVEKIAAIKAKIMAKKRSTIKTDLDDDDITALKQRSFVDAEVDVTRDIV  
SRERVWRTRTTILQSTGKNFSKNIFAILQSVKAREEGRAPEQRPAAPVDPVTLRTKQPIPAAYNRYDQERFKG  
KEETEGFKIDTMGTYHGRTLKSVTEGXSARKTQTPAAQPVPRPVSQARPPPNQKKGSRTPIIIIPAATTSLITML  
NAKDLLQDLKFVPSDEKKKQGCQRENETLIQRRKDQMPPGGTAISVTPYRVVDQPLKLMPQDWDVAVFVQGP  
AWQFKGWPWLLPDGSPVDIFAKIKAFHLKYDEVRLDPNVQKWDVTVLELSYHKRHLDRPVFLRFWETLDRYMKH  
KSHLRF

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**FIGURE 384A**

CTCCCACCCCGTCCTCTTGGCTCGGAAGGGAGACCTGGTTGGCTCTCCTCCATGACAGCCAGCCCCGCTGTGCAC  
AGGGGTGGGGCTCGGGATCCCTCCCTGCACCCTGATGTTTTATTAACCTGTAGATAGTGAATGTCAAGTTGACAGGT  
ACCTTCTCAGGGATTATATATAAATATAGTTAGAGGAAGAAGTTGAAGTCTATTTTACTACTTTTTAGTGTGTTG  
AGTAAATTGATGCTTTAACTGGACAGAACAACATAATTTCTCAGACAATGTCGATGCTGCTGATGACGAAGTGA  
TGCCCTGGAGCTCACCCCTTGATGGAGACTTCCTGTGGTGATGGGAGATGGGGGACTCTGGTGGCAGAAATGGCTTG  
GGGTAGGTGTGAAGTTGCTTCAGTCCCTCTGAGTTGCCCTCTTGTGGATGGAACGTGTGTATCGAACAATAATGA  
AATGCACCTCCGTGTGCATGGAGGCGGCTGATGAGAATACGAGATAGGCCAGTCCTCGCGTCTTCCCTCCAGAAC  
CGGCCGCTCCCGTCTGACGTTGGAGCACGTGAAC TAAGAGTGACAATTTTTTCTACTTGCTTCTGTGAATAAAG  
TGTTCTACAGTCAGCCCAGCACTAACTCACCAGAAAAGAGGAGGGAACAGCACGGAGCCATTCTGGAATTA  
CTCGATGTGCAGAGGCTGCCCCCTTGGCCGCACTTGGGAACATCGTGGACATCTTCCTTCTCTCAGGCTCCTCCT  
GACAGACTCCTGGCAGCACTGGAGACCTCAGGACTATGGAGATCAGAATTGTAATGGCTTTGTCTCTCAGTGTG  
GCCACTCCTGAGGCAAGAGGCTCCTCCTGGGAGCAGGAGAGAGAGAGTTTGTGATGTTGGTTGGAAAATAGGATT  
TATGGATGCAGGAGGGCCGTGCTAGGCCCTCTGCCGCTTCTCTCCCTGCTGTTGGCGGTGACCAGGTCTCAGG  
AGCGGAGACGAGGCTGTTGTGAGTGAAACAGAAGCCCTGGCATAGGGCCAGACCCTAGGCCTGAAAAGGATGCA  
AAGCCTGCTGTTTTAGGCTGTTGGGAAGAATCGTGCGTACCGAGTGATTATGATGAAACGTATCCAGAGAGGA  
AATGAATGGGACCTGAAAAGTGGGTCTGCCACATCCCTGGTAGCCCGCCTCCAAGAGCACTACACTCCCCCAGC  
CCCACCGCCACACTACATGACGTGGGAAGGCTGTCCGTTCTCTTACCCTGGGGACTCAAGTGTGCTCTGCCG  
AGTGAGTCACAGCCCTGATGTGCACCCTGCACTACTCTTTCCCCAGGTGCGCCGAGACGCAGGCTTGCTCATTT  
CCGTCCTGACACAGCTCGCTGTTCCCTGCGGTGGTCAGAGTCCCCCTGTGCTGTGTCAGCTCCTGGACACTACTAG  
TCTTTACATGATAAAGCGCGAGCACTTTTTCGCTTTTGCAGTATTTGGGGAATTTCTAACACATTTCCCGGGGA  
TTTGCCAGGTCCCTCCACCTCCCACGGTGGGTAACTGTGTGGATTCTGCACCTGGCAATCGGCGCTCCCTTTG  
GAAACACCTGGGGGCCCTGTTTCTTCCAGCCTGGTCTTGGTTTCTACCCAGCCGCTTTCAGCCGGCACCTGCA  
TGGGACTGCCTGGAGGGCCACGGTCCAGGGAAGGACAGGTGGGACCCTGACCATGACAGATCTTTCTAAAACAAT  
AAAGTCCCATTTGATGACAACCTGCAGTGGGATGAATGCCATTGCAGCGGTGCTGCTGGGAGCTGCCGAGAGCTTAC  
AACAAAAGCAGTTCCTCTCAAGACACTGCTTGCATCTTCCCTCCACGCCTCTCGGTGCATTTGGAACCTGTTTTAT  
GCGCTGGTATAACTCGAGTCAGCTGCTTATTTCTGTGCCCTTGCACTCACAGGTTCTTTCATTAACTTTTAAAT  
AAGTGGCTAAAAAACTCCTCTGGAGGTTGTTTTTGAAGAGACAGGAAAAAGAAACACACAGTACCTGGATTGT  
TTTGACTTATTTTCAAGCGACTCAGCTGAAAGCCGGTGTGTCATACACAATTTCTCAGCTGACCCAGCCTGAC  
TAAGACTTGATAAAAGGCACAGCCCTTGGCAGCAGGCAGTGCCAAATGTGGACAGTGTAAGCTGTGAGTGT  
GTGCACGGGCGAGCACATGTATGTACTCATACTCCAGATGAACTAAAGGGACACTGGGCTTTGTGCTGGCAA  
AGGTTACGATGCTGCTGTAGCTTGGCTGTGGGCCCCAGGCAGTGTGAGTGGAACTGCTTTGATGGCGTGTGT  
TCAGTGTACTCAGTGGGGTCTCATATGGCCGAGGACCACTGTGAGCACTCCGCCCGCTGTGGCACAGAACACG  
GCTGGGGTCATCACAGCCCAGGTCTTTATTGAAAGGCGGCTCATATAGAACCATTGTCAGGCTGTGGGCCATC  
TCTCTGCCTCTGCCCTATCTTGGCTGCCTGGAGGGGCCAGGCCAAGAGGATTCTTTACCCCTGGAAGAGCTCC  
CCAGGCATTACGCCTATGGCCCTTGACATTTGGCTGCAGGTTACCGTCAGAATCAACACCATATCCTGAGGAAGC  
CCTGGTATTTCCCCAAGTCTGCCTATGTATTAGACACTCTAATCAATGCTAACACAGTTTCTGTTTGGAGGAAC  
TAGTTTTGTCTATAATACTACACCCCTCTATTGTTTTTAAATAAGAAAAAACCACGAACTTTCCATCA  
AAGCAATGGTCCGTGTTGGCCTGATGCTTTAAGAAGTTTGAGGAGGTAGGTATGGAGGCACCTTAACACCAAGTTT  
TTGAGCAGAAGTTCTAGAAGCTGATTTAGAACTACACAGCTATGGATACACCTGATGAAAACCGCAAAAGGCGAT  
GACAGGCCCAGAAATATGACCAGCAAGCCCGTGAGCCTTTGGGGCATCCGACTGAATTTGAAAATAATACCCCAT  
TCAGATGAACATTAAGCCAATGTACTGGAATCTCTTTGTCTGCCCGACATTTGGGGGTGTCCAAGGACCTG  
TGTTTTTAACAAAGATGACTTTATGACCGTTCTAAGGATTGAACAGATTCTGTCACAGGCTGCCAGGTTTCAAGT  
TAGGTCCTCTTAGTATAAGCTCTCTTTTTTCTGAATGTAAACCTATTTGCATTGTCAATTTCTAATAATCCAGTA  
GGTTTTCTGGATATTGTAAAGATACTGAGTACAGATATAACTGTGTAAATTTTCATAGTGTTTTATTTGAGGTGAG  
AGTTTTGTTATAGTTTATAAAAGATATTTTCTATTTCAGACCTCAGGGCTATTTTGGGACCTACAAATAAATGTG  
ATTCCCAGCAGCTTCAATTTTTGATATTCAAAAAGTTAATAATCTTTAAGCTAAATATAATGTGATATGATTGAG  
AAAAAATGTTTTTCCCTTTTAACTTCTAACAAATTATGTATCTAATGTTTAAAAAATATGGAAAAAGGGATAA  
TGTAATAATGTGGGAGAATTGTGGCTAAAGAATAAAAAATCACTTGTTAAACGCATTCTTATGGTACAAATGTG

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**FIGURE 384B**

TGATATTTAAATAAACTTAAGTGTGTATAAATTAGAGAATG

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**FIGURE 385**

LPPRPLGSEGRPGWLSSMTASPAVHRGGARDPSLHPDVY



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**FIGURE 386**

TTCCAGCTCACTTGGGGTGGCAGCACAACTTAGGGAAATAATACCATCCAGTGCTTTGCCTAATGGCACAGTTCA  
GCATATCCTC**ATG**CCAGATGATGAAGGTGAAGGTGAATTGTGTTGGAAAAAGTAGACTTAGGGGACATGAAGAA  
TGTGGATGTCTTATCTTTTCAGTCATGCTCCTTCATTCAATTTTCTTTCTAATTCATGTTGGTCTAAACCAAAGGA  
AGATAAAGCAGTAGATACATCAGATTTGGAAGTTGCAGAAGATCCTATGGGCCTCCAAGGAATAGATCTGATCAC  
AGCAGCATTGCTTTTTTGTCTAGGAGATTCTCCAGGAGGGAGGGGTATATCTGATAGCCGCATGGCTGATATTTA  
TCACATTGACGTTGGGACTCAGACTTTTTCACTTCCATCTGCAATATTAGCTACAAGTACAATGGTTGGGGAGAT  
AGCTTCAGCTTCAGCTTGTGATCATGCCAATCCACAGCTTTCAAATCCAAGTCCGTTTCAGACACTTGGGCTGGA  
TTTAGTATTGGAATGTGTCGCTAGGTACCAACCAAGCAGCGTTCAATGTTTACCTTTGTGTGTGGACAGTTATT  
TAGAAGGAAAGAATTTTCTTCCCACTTTAAGAATGTGCATGGTGACATTCATGCTGGACTCAATGGCTGGATGGA  
ACAGAGGTGCCCTTTAGCTTACTATGGTTGTACCTATTCTCAGCGTAGATTTTGTCCATCAATACAAGGAGCAAA  
GATTATACATGACCGCCATTTGAGGTCATTTGGAGTTTCAGCCATGTGTATCTACAGTATTAGTGGAGCCTGCTAG  
AAACTGTGTGTTGGGATTACATAATGACCATCTAAGTAGTCTTCCTTTTGAGGTCTGCAGCATATTGCAGGCTT  
TCTCGATGGCTTCAGCTTATGTCAGCTCTCATGTGTATCCAAGTTAATGAGGGATGTGTGTGGCAGCCTGCTTCA  
GTCTCGTGGCATGGTCATACTGCAGTGGGGGAAAAGGAAGTATCCAGAAGGAAATTCATCATGGCAGATAAAAGA  
AAAGGTATGGCGATTTAGTACTGCATTTTGTCTGTTAATGAATGGAAATTTGCTGACATCCTAAGCATGGCAGA  
CCACTTGAAGAAATGCAGTTACAATGTTGTGAGAAACGGGAGGAAGCAATCCCTTTGCCATGTATGTGTGTGAC  
ACGAGAACTCACTAAAGAAGGACGTTCACTACGCTCAGTTTTAAACCTGTACTTT**TAAA**AGTTGTAATATTACTA  
GCACATATATGCAAGCACCTAGTATAATTTCTTGTAAATATGTGAACTTTATTAATGTATTAAATATTACAAC  
AGCTAAATTTATTGTCACTGTGTATATAATGTTTTGAAGTGACATCTATTTTTATAAAGTACTGTTTAGTTGGAA  
AAAGTTGCCTTAATGTTTGAAATGTGTGAAATTTTGAACCTTGCTGGACAGGGTGATTTAATTTTTAGCTACAT  
AATTTTAAGAATTAGTATTTTCAGTGGTGTGCATATTTTGGTTCTTAAATTTTGCTTCTTAAACTAAAAAATC  
CTGACCAATTTATTTGTTGTTTTCTGTGGGTGCGACCCATGCAATCAAAAAGCAAAATTTTGATTGAGATTTTT  
TACAGCATAGGTTTTTCATATAAAAAATATTCTGAATTTGTTAAGCACTGCCATAATATCATTATAATGTTTTGT  
CTTTTAGTGCTTCCCTATACAATTGTTAATGCACAAATGATCTCTAATATATACTTACATACGTAAATCATAAA  
GTTTGGTAATGCAGTTTATCGTTTTAAAAATAATCCACAAAGATGTTTTTATCTCACATACTTACAACCAACAC  
ACAGAGTGACCATGTGCAGCTTCTTTTTTGTAGATGCCACATCCGAAGACTCATCGCAGTGTGTTATATGACA  
GGACAAAGCAAAAAACAAACAAAAAGCAAGCCTGTGAATATAATTTAATTTGAAACTGCTCCTGGTATTATATATT  
TGCTAGTTATCTAATGTTTTAAAGAAAAATACCTCATTTAGGTTTGAATTGGGCGTATTGTGTAAATTTCAAA  
TATTCAGAAATGCAAGGGCTTGACTATTAAATGTTTGCCTTTGATGTTTATAAACATTACAACATATGTTGTTTTA  
AGACATTTAAAAACGTGAAATTTGTTATCTTTGTAAATGACAATCATGTAGAAACCTGTCTTGGTTGACAATCT  
CTTTGAAACATTTCCGAGTTAATTTCCCATAGGCTTCACCACCAAGAAAGTAAGAATTGCATCTTTACATAATGA  
TCAAGGTATAATGGAAAAATATACCTATTCTTGAAGTAGTTTATTATAGTTTTCAAATTGATTTATACCATTATT  
AACCTGATGTGGTCTGCTTAAAAAATGAATATATCAGTATTTAGAAATAAATTGCAAAGGTGGGAATATATACTT  
AAATAATTTGCTCTTAAGTAAATTAGCATTGGTAGTCTGAAATGGTGACAGATTACTTGTTAAAAATTGTGAAAAC  
TCTGTTGTGTCCTCTCTTCCTACATTTGTCCCTGAGAGTACTCCACGATTACTAGGTTCTTGATTCCCTTATATG  
GCAATCAGGCAGAGGCGTTCCCTAAGCATTAGAGAGTTCTGAAGCTTAAGATTTGTTTTGGTTGGATGAAGTCCT  
TAGTACAGTTGAAAAACAGAGCATTAAGACTAATCAATTGTTTTGCCTCACCAGTCATTTTTAAATAGTAGAATA  
CTTATTTCTCAGTGCTTAAATTTCTTTTTCAACTGTGAGATTGAATAAACAGTCTCTATTTCTGTGGAAAAAAC  
AACAGAAAAGAGATATTAAATACCATAAAATGTAACCTCTGCCTTTTTAAAGTTTTGCTGAAGAATGTGTCTGTGGT  
TAGGATAGCACAAAGCATTAACTTTTGTATATAGTTATGCTTTTTAAATTCATTGTTTTTAAATTTAGACTTCT  
TATTTCCACACTGGATTATGAGATACTTAACAATTTTCCACCTTATATTTCTTTTACACATTTTGCTGTTCTCT  
TTTTGTTATTGTTATGCCACCATAACATTTTGTAAATGTTTTCTTTGTGAAACATTTGTTCAAGTTCTAATA  
AAATTAATGTTTTCCCTTAACATGGCTCAATAACTTAAAAACGTTTCAATTAATAAAATTTTAATACTTGTTTGA  
CAAAAAAAAAAAAAA

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**FIGURE 387**

MPDDEGEELCWKKVDLGDMKNVDVLSFSHAPSFNFLNSCWSKPKEDKAVDTS DLEVAEDPMGLQGIDLITAAL  
LFCLGDSPGGRGISDSRMADIYHIDVGTQTFSLPSAILATSTMVGEIASASACDHANPQLSNPSPFQTLGLDLVL  
ECVARYQPKQRSMFTFVCGQLFRRKEFSSHFKNVHGD IHAGLNGWMEQRCPLAYYGCTYSQRRFCPSIQGAKI IH  
DRHLRSFGVQPCVSTVLVEPARNCVLGLHNDHLSSLPFEVLQHIAGFLDGFSLCQLSCVSKLMRDVCGSLLQSRG  
MVILQWGKRKYPEGNSSWQIKEKVWRFSTAFCSVNEWKFADILSMADHLKKCSYNVVEKREEA IPLPCMCVTREL  
TKEGRSLRSVLKPVL

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**FIGURE 388**

GAGGCGCCGGCGGCCACGCCGCGGAAGGCGCGGGCCGAGCAGAGCCGGGCGTTGGAGCCCGCGCGCGCATGGAGG  
CGTTGCCGGCAGCCCCCTGAGGGCAGCGGGGAGACAAGACCCGGCGACCTCGCGCATCCCTCGAGCCGCCACGCG  
CTCTCGCCACCGGGCGGCGACGGGCGCGGAGCCGGCGCGGCCATGGCGACGGGCGGCCAGCAGAAGGAGAACAC  
GCTGCTTCACCTCTTCGCCGGCGGGTGTGGAGGCACAGTTGGTGCTATTTTCACTTGTCCACTAGAAGTCATTAA  
GACACGGTTGCAGTCTTCAAGATTAGCTCTCCGGACAGTCTACTATCCTCAGGTTCACTCTGGGGACCATTAGTGG  
AGCTGGAATGGTGAGACCAACATCCGTGACACCTGGACTCTTTTCAAGTTCTGAAGTCGATCTTGGAGAAAGAGGG  
ACCAAAGTCACTTTTTAGAGGCTTGGGTCCAAATTTGGTTGGAGTTGCACCATCAAGGGCTGTATACTTTGCATG  
TTACTCCAAAGCCAAAGAGCAATTTAATGGCATTTTCGTGCCTAACAGCAATATTGTGCATATTTTCTCAGCTGG  
CTCTGCAGCTTTTATCACAAATTCCTTAATGAATCCTATATGGATGGTTAAAACCCGAATGCAGCTAGAACAGAA  
AGTGAGGGGCTCTAAGCAGATGAATACACTCCAGTGTGCTCGTTACGTTTACCAGACCGAAGGCATTCTGTGGCTT  
CTATAGAGGATTAAGTGCCTCGTATGCTGGAATTTCCGAACTATAATCTGCTTTGCTATTTATGAAAGTTTAAA  
GAAGTATCTGAAAGAAGCTCCATTAGCCTCTTCTGCAAATGGGACTGAGAAAAATTCACAAGTTTTTTTGGACT  
TATGGCAGCTGCTGCTCTTTCTAAGGGCTGTGCCTCCTGCATTGCTTATCCACACGAAGTCATAAGGACGAGGCT  
CCGGGAAGAGGGCACCAAGTACAAGTCTTTTGTCCAGACGGCGCGCCTGGTGTTCGGGAAGAAGGCTACCTTGC  
CTTTTATAGAGGACTGTTTGCCAGCTTATCCGGCAGATCCCAAATACTGCCATTGTGTTGTCTACTTATGAGTT  
AATTGTGTACCTGTTAGAAGACCGTACTCAGTAACAGGCCGGAATTTGTGCTCTAGAAGAATAAACTGAAAAA  
CTCTAGAGAATTTTTTTTCCCCATTGATGTTTAGAAAGTTTGAGACTGAAACAGGAAAGGCCATAAAATATCTGG  
TTCATATCACCTGTTGGACATTTCTTTTGGATTCTGCTTTCTGGAAGGTTTAAATTCATTACGTTAATAGTT  
AATTATACTTTTTTTTAACTTAAGAGGATTCAGGGTTAAGCACCAACTAAATTAAATCATGCTATTTAATTTAA  
GTATAACC

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**FIGURE 389**

MATGGQKENTLLHLFAGGCGGTVGAIFTCPLEVIKTRLQSSRLALRTVYYPQVHLGTISGAGMVRPTSVTPGLF  
QVLKSILEKEGPKSLFRGLGPNLVGVAPSRVYFACYSKAKEQFNGIFVPNSNIVHIFSAGSAAFITNSLMNPIW  
MVKTRMQLEQKVRGSKQMNTLQCARYVYQTEGIRGFYRGLTASYAGISETIICFAIYESLKKYLKEAPLASSANG  
TEKNSTSFFGLMAAAALS KGCASCIAYPHEVIRTRLREEGTKYKSFVQTARLVFREEGYLAFYRGLFAQLIRQIP  
NTAIVLSTYELIVYLLDRTQ

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**FIGURE 390**

GACCAGGCCTCCTGATTGTCCTTTTGTGGGCTATTCTATACTCTCTCTCATAAGTCCCACAAAAGTGGGTAGAG  
CACACGTTTCCTATACACTGGCTTTTTATTCTAATTGAAAAGTAGTTTACTTTTTAAGAACTGGTTTTTACTT  
TATTCTTATCATCCTTTTCCAAGAGCTTTCACAGGCATAACTAATTTGACATCAGCAGAACTGATTTTCATCATCA  
GGCCTAGGTTACTCACTACTGCTTCTCTTTGAAGTTGTGAGGCTGGGAGATGCACAACACCGACGAGGGAGATGT  
GGTCACAGAGGCATGACAAAGTTCAAGCTTCAGAAAGTAGCCAACTAATCAATATTCTCAGCTCAAGACAAAA  
TTGATCAGTGTAACAGATATAGTAAGTTTCGTCCAGGTCACAGGAGTCAGTTTCACTCTCACATCTTGTCAATTC  
AACGACGTGGGCTCCTCACTAAACAATGTTTGGCTTAGAAGTAGATTCTATAGAGTTTTATTATGGACAATGTCC  
AGTGTCAATGCCAATACTCTCCAAAATGATTTGAGCCATGAAGTACAGGGAGGAGAAGAGTATTTGTTGAACACT  
TGTAATGAGTGCTTTTCTTCCATAATAGCACACATCTAGGTATTTTGCCCAATTTGCAGATGAGGCAAAAATTT  
GGAGTATGAATTTCAAAGAAGTCGAACAGGCTAGATGAGTGCAGAGATGGAGAGTTAATCAAAGGGAGTCTGCTG  
TAAACTCCTCCACATGTGCAAATTGGCCAATATGAAAGCAATGAATATTTGACAAATTGAAGTTTTCTGCTAC  
TTCACCAATTTTCTCAAGGGCTTTGATTGAGTTTTCTATATCAGAAGGTAAAAGGCGAGAGGCTTCCATGGCTGC  
CTGTCAACAGGTTTGTGGAGAGAAGGGCTGGGAACCCTGGGCAAGCAGCACTTTCAGCAATAAACAGTATCCT  
CAGGGGCCCCACAGAGGGAAGATGGTTTCAGTGCCAAAGGCTTGAGTCCCCTTAATTTTTTTCATTCCACTTCACTC  
ATCACCTGTCTCCTTTCTATGCTAGCAAAAGAACAATTATTCATAGATGGTAAAATTATTTATAGAGCCGGTGTA  
ATTAAAAAGAAAAAAAAGAAAAGAAACACCTGATGCAAAATTCCTCCATTGCAAGGTGAGAAGATGAAAATCCA  
AGTAGCTAAGTGGCTTTCTCAAGCTCACAAATCTATAATTCAGTCTCTTACATCTATCAGAAACATGTTCCGCCT  
TATCCTGGTCTCTGAAAACAAAACATAGTGTCTCCAAAGCATTAAATGGTTTTTGTGTTTTGATATAAAAAAGGA  
CATGTCCCCAGAAATTATCCCCTGCATAAACTTTAGAAAATGATGCTTGAAGGTCACTAGAAGTTGATTACTT  
AATGACAGCCAGTAAGGTACAAACATACACAGAGCCAAATTCCTGGGAGATGAAAAATGAAAAAAAATAACAGA  
TTCAACCAGTGCTTCTGTCAACACACTACTCTGAGATTTTTCTTATTTTAATCTTATGGTCTAGAGTAGTATTA  
G

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**FIGURE 391**

ACTCATTTATACCAGGAAACAGACAAGAGAACAAGAGGCTGCCGAAGACAAAACCTTCTCTGCAAGCACCTGTGCA  
CAGCAATGTGCGTGCGGCATCTGTGAGAAGAAGAGAATCTGTGAAGTTTGAGCAAGCGGCCTTCCCAAGATGTACC  
GAATATCTCAACTGATGTCAACACCAGTAGCAAGTTCTTCCAGGTTGGAAAGAGAATATGCTGGAGAGCTGTCTC  
CCACGTGCATTTTCCCAAGTTTCACCTGTGATTCCCTGGATGGTTACCATTCTTTTGAATGCGGCTCCATAGATC  
CCCTGACAGGCTCCCACTATACCTGTGCGCCGAAGTCCCAGACTCCTCACCAATGGCTACTATATTGGACTGAAG  
ACAGCTTCTGTGCGACAAAGATGGCAACATAACTCTGAACCCATCCCAGACCAGCGTTATGTATAAGGAGAAGT  
TAGTTAGTACCTCCAAATCTTGGCTGCATGGAAGTATCTTTGGTGACATCAACTCTTCTCCAAGTGAAGACAAGT  
GGTTGAAGGGGACCAGGAGGTTGGACACAGACCATTGCAATGGAAATGCAGATGATTTAGACTGTTCTTCTCTGA  
CTGATGACTGGGAGTCAGGGAAGATGAATGCAGAGTCTGTGATCACCTCCTCTTCCAGCCACATCATATCTCAGC  
CTCCTGGAGGAAACTCCCATAGCTTGTCTCTTCAGTCCCAGTTGACAGCTTCTGAACGTTTCCAAGAGAATAGTT  
CGGATCATTGAGAAACCAGGTTGTTGCAAGAGGTCCTCTTTCAGGCAATCCTGCTTGCTGTGTGCTTAATCACTT  
CTGATGTGCAAGATGGTTTATGGGAGAAATATTAGCCAGTGTCTTCACATGCTCATTGATGATAACTGTAGCTT  
ATGTGAAATCATTGTTTCTCAGCCTTGCCAGCTATTTCAAACCAGTGCCTGTGCTCGGTTTGTCAAAATTTGAC  
AACCATTTAGGAATGCCTTCGATGAATGTCTCCATCTGAATATCTGGAAATGTCCAACCTGCAGTCTACTTGG  
AATCAAGTGTTTATTGGAAGGGAGTAAGCGAGTAATGGAGAAAAAGCCATTTTAGTTTGACTATGTGATTTTAA  
AATGATCTCAGTTTTTCCATCAAATTATAATATGCTCATGAAAATAATATTAATTTGCCTTCCCTTTGCAAACA  
CCGGCAGTTGAAAGGAAAAGGACGGGGAATGTGATGGAAAAGAGACCGCCTGGAATAAATGTCCCCCTATGATTC  
TTTAAGGCAGTGGTTCTCGAGCTTGAATTTTCATTAGGAAATTCGTGAGGAGCTTGTAACCAGATTTCTGGGTC  
TGCCACATGCACCTATCTCTTGCTGAATTGCTTTAATAGAATAATGAGAGCAAGTTTGCTAATAATACCAACC  
TGACAACCTGAATAACAATAAATGCAATTTGTACATAAAATATAATGCTGCAAAAAGTTTGTCATTCACCTCAGTG  
GAGTGACTTGATATTAGGTGGTAACCGTAGATGATGGTTAATATGAAAATGGACAGGAAAAGAAGCATTTTCTGAA  
AGTTATATTCTTTGAACCACGTTCTAAACCAAGTTTTTAATCTTCTTGGGGCTCGTAATTACCTTTCACTTTAA  
TGTCACCTTAAAGATATAACACAGAAAAATGCCTTGAGGGCAAAATATAGGCAAAACACCAATGCGCTTTCAAATG  
CATGAAAATGGTGCAAGTTGTACCCTTGAGCCTTGACTCAAGGGCTGTAGATGTTCCCTTTCCACCCCCACACTT  
GGTGCGTGTTACAAAAGCAAATATGGCCTGTAATTCAAATTTGTTCTATGTGATACTCTCTGAGTAAAACTCAT  
ACATGCAGAAAATTTGCTTTGCTCGAAATGATAATGCCAAAATATAACTTTATATATAATTTGCATTTAGTACAT  
TTTTGGTTAAAAAATAAACTAATAAATAAGTGAAGTCATCAGC

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**FIGURE 392**

MYRISQLMSTPVASSSRLEREYAGELSPTCIFPSFTCDSLDGYHSFECGSIDPLTGSHYTCRRSPRLLTNGYYIW  
TEDSFLCDKDGNIITLNPSQTSVMYKENLVSTSKSWLHGSIFGDINSSPSEDNWLKGTRRLDTDHCNGNADDLDCS  
SLTDDWESGKMNAESVITSSSSHIISQPPGGNSHLSLQSQLTASERFQENS SDHSETRLLQEVFFQAILLAVCL  
ITSACARWFMGEILASVFTCSLMITVAYVKSLFSLASYFKTTACARFVKI

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**FIGURE 393**

CGCTAAGCGTCCCAGCCGCATCCCTCCCGCAGCGACGGCGGCCCCGGGACCCGCGGGCTGTGAACC**ATGA**ACACCC  
GCAATAGAGTGGTGAAC TCCGGGCTCGGGCGCTCCCTGCCTCCCGCCCCGACCCGGGATCCCCAGGACCCCTTCTG  
GGCGGCAAGGGGAGCTGAGCCCCGTGGAAGACCAGAGAGAGGGTTTGGAGGCAGCCCCCTAAGGGCCCTTCGCGGG  
AGAGCGTCGTGCACGCGGGCCAGAGGCGCACAAGTGCATACACCTTGATAGCACCAAATATAAACCGGAGAAATG  
AGATACAAAGAATTGCGGAGCAGGAGCTGGCCAACCTGGAGAAGTGGAAAGGAGCAGAACAGAGCTAAACCGGTTT  
ACCTGGTGCCCGAGACGGCTAGGTGGAAGCCAGTCAGAACTGAAGTCAGACAGAAACAACAACCTCCAGCTGATGC  
AATCTAAATACAAGCAAAAGCTAAAAAGAGAAGAA TCTGTAAGAATCAAGAAGGAAGCTGAAGAAGCTGAACCTCC  
AAAAATGAAGGCAATT CAGAGAGAGAAGAGCAATAAACTGGAGGAGAAAAAAGACTTCAAGAAAACCTTAGAA  
GAGAAGCATT TTAGAGAGCATCAGCAATACAAAACCGCTGAGTTCTTGAGCAAACCTGAACACAGAATCGCCAGACA  
GAAGTGCCTGTCAAAGTGCTGTTTGTGGCCCAAA TCCTCAACATGGGCCAGAAGCTGGGCTTACAGAGATTCTC  
TAAAGGCAGAAAGAAAACAGAAAATTGCAAAAGATGAAGGATGAACAACATCAAAAGAGTGAATTACTGGAACCTGA  
AACGGCAGCAGCAAGAGCAAGAAAGAGCCAAAATCCACCAGACTGAACACAGGAGGGTAAATAATGCTTTTCTGG  
ACCGACTCCAAGGCAAAAGTCAACCAGGTGGCCTCGAGCAATCTGGAGGCTGTTGGAATATGAATAGCGGTAACA  
GCTGGGGTATAT**TGAG**AAAAATATTGACTCCTATCTGGCCTTCATCAACTGACCTCGAAAAGCCTCATGAGATGCTT  
TTTCTTAATGTGATTTTGTTCAGCCTCACTGTTTTTACCTTAATTTCAACTGCCCACACACTTGACCGTGCAGTC  
AGGAGTGACTGGCTTCTCCTTGTCTCATTTATGCATGTTTGGAGGAGCTGATTCCTGAACCTCATATTTAAACTC  
TACTGCCAGGGAAATGCTACATTATTTTTCTAATTGGAAGTATAATTAGAGTGATGTTGGTAGGGTAGAAAAAGA  
GGGAGTCACTTGATGCTTTT CAGGTTAATCAGAGCTATGGGTGCTACAGGCTTGTCTTTCTAAGTGACATATTCTT  
ATCTAATTCTCAGATCAGGTTTTGAAAGCTTTGGGGGTCTTTT TAGATTTTAAATCCCTACTTTCTTTATGGTACA  
AATATGTACAAAAGAAAAGGTCTTATATTCTTTTACACAAATTTATAAATAAATTTTGAACCTCTTCTGTAAAA  
AAAAAAA



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**FIGURE 394**

MNTRNRVVNSGLGASPARPTRDPQDPSGRQGELSPVEDQREGLEAAPKGPSRESVVHAGQRRTSAYTLIAPNIN  
RRNEIQRIAEQELANLEKWKEQNRAPVHLVPRRLGGSQSETEVRQKQQLQLMQSKYKQKLKREESVRIKKEAEE  
AELQKMKAIQREKSNKLEEKRLQENLRREAFREHQYKTAEFLSKLNTESPDRSACQSAVCGPQSSTWARSWAY  
RDSLKAEENRKLQKMKDEQHQSLELLELKRQQQEQUERAKIHQTEHRRVNNAFLDRLQGKSQPGGLEQSGGCWNMN  
SGNSWGI

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**FIGURE 395A**

GAGCCGGTGGCGCAGGTGTCTGGGGTCTCTGAGCGCCAGCCTGGGAGCATGATTGTGGACAAGCTGCTGGACGAC  
AGCCGCGGCGGAGAGGGGCTGCGGGACGCGGCGGGCGGCTGCGGCCTCATGACCAGCCCGCTCAACCTGAGCTAC  
TTCTACGGCGCGTCTGCGCCCGCGCCGCGCCCGGGCGCCTGCGACGCCAGCTGCTCGGTCTTGGGCCCCCTCGGCG  
CCCCGCTCGCCCGGCTCCGACTCCTCCGACTTCTCCTCTGCTCGGTGTCTCTCTGCGGCGCCGTGGAGTCC  
CGGTCTGAGAGGCGGCGCCCGCGCCGAGCGCCAGCCAGTTGAGCCCCATATGGGGGTGGCAGGCAGCAGAGAGGC  
CCCTTTCAAGGTGTTCGGGTAAAGAACTCAGTGAAGGAAGTCTGTGACATCCGAAGTCATAAACAGAAGGCT  
TCTGGCCAAGCTGTGGATGATTTTAAGACACAAGGTGTGAACATAGAACAGTTCAGAGAATTGAAGAACACAGTA  
TCATACAGTGGGAAAAGGAAAGGGCCCGATTCTGTTGCTGATGGACCTGCTTGCAAAAGGCCAGCTCTGTTGCAT  
TCCCAATTTTTGACACCACCTCAAACACCAACGCCCGGGGAGAGCATGGAAGATGTTTCTCATCTCAATGAACCCAAA  
CAGGAGAGCAGTGTCTGATCTGCTTCAGAACATTATCAACATTAAGAATGAATGCAGCCCCGTTTCCCTGAACACA  
GTTCAAGTTAGCTGGCTGAACCCCGTGGTGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTGAGGACTTCCATGGA  
GGGAGGTCTTTTCTCCACCTCAGAAATGCCAACCATTCCAAGTCAGGGGCTCCCAACAAATGATAGACCAGGCT  
TCCCTGTACCAGTATTCTCCACAGAACAGCATGTAGAGCAGCAGCCACACTACACCCACAAACCAACTCTGGAA  
TACAGTCTTTTCCCATACCTCCCCAGTCCCCCGCTTATGAACCAAACCTCTTTGATGGTCCAGAATCACAGTTT  
TGCCCCAAACCAAAGCTTAGTTTCCCTTCTTGGTGATCAAAGGGAATCTGAGAATATTGCTAATCCCATGCAGACT  
TCCTCCAGTGTTCAGCAGCAAAATGATGCTCACTTGACAGCTTCAGCATGATGCCAGCAGCGCTGTGAGGCC  
ATGGTGGGGCAGGATGGCCTCTGACTCTTCAAACACTTCACTGCCATTCTCAAACATGGGAAATCCAATGAAC  
ACCACACAGTTAGGGAATCACTTTTTTCACTGGCAGGTGGAGCAGGAAGAAAGCAAATTTGGCAAATATTTCCCAA  
GACCAGTTTCTTTCAAAGGATGCAGATGGTGACACGTTCTTTCATATTGCTGTTGCCCCAAGGAGAAAGGGCACTT  
TCCTATGTTCTTGCAAGAAAGATGAATGCACCTTACATGCTGGATATTAAGAGCACAAATGGACAGAGTGCCTTT  
CAGGTGGCAGTGGCTGCCAATCAGCATCTCATTGTGAGGATCTGGTGAACATCGGGGCACAGGTGAACACCACA  
GACTGCTGGGGAAGAACACCTCTGCATGTGTGTGCTGAGAAGGGCCACTCCCAGGTGCTTCAGGCGATTGAGAAG  
GGAGCAGTGGGAAGTAATCAGTTTGTGGATCTTGAGGCAACTAATATGATGGCCTGACTCCCCCTCACTGTGCA  
GTCATAGCCACAATGCTGTGGTCCATGAACTCCAGAGAAATCAACAGCCTCATTACCTGAAGTTCAGGAGCTT  
TTACTGAAGAATAAGAGTCTGGTTGATACCATTAAAGTGCTAATTCAAATGGGAGCAGCGGTGGAAGCGAAGGAT  
CGCAAAAGTGGCCGCACAGCCCTGCATTTGGCAGCTGAAGAAGCAAATCTGGAACCTATTGCGCTCTTTTGGAG  
CTGCCCAGTTGCCTGTCTTTTGTGAATGCAAAGGCTTACAATGGCAACACTGCCCTCCATGTTGCTGCCAGCTTG  
CAGTATCGGTTGACACAATTAGATGCTGTCCGCTGTTGATGAGGAAGGGAGCAGACCCAAGTACTCGGAACCTTG  
GAGAACGAACAGCCAGTGCATTTGGTTCCCGATGGCCCTGTGGGAGAACAGATCCGACGTATCTGAAGGGAAAG  
TCCATTACAGCAGAGAGCTCCACCGTATTAGCTCCATTAGCTTGGAGCCTGGCTAGCAACACTCACTGTCAGTTAG  
GCAGTCTGATGTATCTGTACATAGACCATTGGCTTATATTGGCAAATGTAAGTTGTTTCTATGAAACAAACAT  
ATTTAGTTCATATTATATAGTGGGTTATATTAAGAAAGAAAGAAAGAAATATCTAATTTCTCTTGGCAGATTTG  
CATATTTATACCCAGGTATCTGGGATCTAGACATCTGAATTTGATCTCAATGGTAACATTGCCTTCAATTAACA  
GTAGCTTTTGAGTAGGAAAGGACTTTGATTTGTGGCACAAACATTATTAATATAGCTATTGACAGTTTCAAAGC  
AGGTAAATTGTAAATGTTTCTTTAAGAAAAAGCATGTGAAAGGAAAAAGGTAAATACAGCATTGAGGCTTCATT  
GGCCTTAGTCCCTGGGAGTTACTGGCGTTGGACAGGCTTCAGTCACTGGACTAGATGAAAGGTGTCATGGTTAG  
AATTTGATCTTTGCAAACCTGTATATAATTGTTATTTTGTCTTAAAAATATTGTACATACTTGGTTGTTAACAT  
GGTCATATTTGAAATGTATAAGTCCATAAAATAGAAAAGAACAAAGTGAATTGTTGCTATTTAAAAAAATTTTACA  
ATCTTACTAAGGAGTTTTTATTGTGTAATCACTAAGTCTTTGTAGATAAAGCAGATGGGGAGTTACGGAGTTGT  
TCCTTTACTGGCTGAAAGATATATTCGAATTGTAAAGATGCTTTTCTCATGCATTGAAATTATACATTATTTGT  
AGGGAATTGCATGCTTTTTTTTTTTTTTCTCCCGAGACAGGGTCTTGCTCTGGCGCCAGGCTGGAGTACAGTGG  
CATGATCTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCTACCTGAGCCTTCTGAGTAACTGGGAC  
TACAGGTGTGCACTCCTCGCCTGGCTAATTTTTTATTTTTTGTACAGGCAGGATCTTGCCACCTTGCCAGGCTG  
GTCTTGAACCTCTGAGCTCATGCCATCTGCCGCTTAGTCTCCCAAATGCTGGGATTACAGGAGTGAGCCACC  
ATGCCCGGCTGGCAGTTGCATGGAAGAGAACACCTCTTTATGGCTTACCCTCTAGAATTTCTAATTTATGTGTTT  
TGTTGAAATTTTTGTTTTTTTTTACCTTTATTGAAACAACAAAAGTCAGTATTGAAACATATCTTCTGTTTTCTG  
TTGTCAAATGATGATAATGTGCCATGATGTTTTATATATATCATTGAGAAAAGTTTTATTTTTTAATAACATTC  
TATTAACATTATTTTGTCTGCGCTGGCATGCCTGAGGAATGTATTTGGCTTTGATTACACACTAAGTTTTTGTG

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**FIGURE 395B**

ATAAATTGACTCATTAAAAACCTTTTTTTTTTAAAAAAAAAAAAAAAAAGAAAATCTCATTAGTGAACCTTATCTTTG  
CAGCTGAGTACTTAAATTCTTTTTAAAAAGATACCCTTTGGATTGATCACATTGTTTGACCCAGTATGTCTTGTA  
GACACGTTAGTTATAATCACCTTGTATCTCTAAATATGGTGTGATATGAACCAGTCCATTACATTGGAAAACT  
GATGGTTTTAAATAAACTAATTCATAAAAAAAAAAAAAAAAAA

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**FIGURE 396**

MIVDKLLDDSRGGEGLRDAAGGCGLMTSPLNLSYFYGASPPAAAPGACDASCSVLGPSAPGSPGSDSSDFSSASS  
VSSCGAVESRSRGGARAERQPVEPHMGVGRQQRGPFQGV RVKNSVKELLLHIRSHKQKASGQAVDDFKTQGVNIE  
QFRELKNTVSYSGKRKGPDSLSDGPACKRPALLHSQFLTPPQTPTPGESMEDVHLNEPKQESSADLLQNIINIKN  
ECSPVSLNTVQVSWLNPVVVPQSSPAEQCQDFHGGQVFSPQKQPFQVRGSQQMIDQASLYQYSPQNQHVEQQP  
HYTHKPTLEYSPPFIPPQSPAYEPNLFDPESQFCPNQSLVSLGDPRESENIANPMQTSSSVQQQND AHLHSFS  
MMPSSACEAMVGHEMASDSSNTSLPFSNMGNPMNTTQLGKSLFQWQVEQEESKLANISQDQFLSKDADGDTFLHI  
AVAQGRRALSYVLARKMNALHMLDIKEHNGQSAFQVAVAAHQHLIVQDLVNIGAQVNTTDCWGRTPLHVCAEKGH  
SQVLQAIQKGAVGSNQFVDLEATNYDGLTPLHCAVIAHNAVVELQRNQPHSPEVQELLLKNKSLVDTIKCLIQ  
MGAAVEAKDRKSGRTALHLAAEEANLELIRLFLELPSCLSFVNAYNGNTALHVAASLQYRLTQLDAVRLLMRK  
GADPSTRNLENEQPVHLVPDGPVGEQIRRIKKGKSIQQRAPPY

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**FIGURE 397**

TTTTTTCTAGAAAACACAGCTTCTGTAATCTTTCTCTTTCTTTCTGGAAATTAGAACAAATTTTTTGA  
AGGAAGAAATATTGTCAACATTATAACCTTGAGTGAAGCATTATTACTTTAGTAAATATCTCGCTAAGATACTGA  
ACATCAAAATTAAAAATCAAACAACTTCTAAATGTATTTATTTGCATTTTTATGCTGTGTACTTTTGAATATAGT  
GATTTTATTATTTTGTAAATTTTCAAGTACTAATTGATTGGCTGTCATGTGCTATAAATGATAATGCCATCTGTGAACC  
AGCAAGGCATAGACAGAATTGTTTGGAAAAAGCCTGATTAGTACCAGTTGCATTAATTCTAACTCCCCTAATTT  
AGGACCTTTTTTTTCTTA

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**FIGURE 398A**

TGAATTCGTGAGAGACTTGAGGGAGGCGCTGCGACTGACAAGCGGCTCTGCCCGGGACCTTCTCGCTTTTCATCTA  
GCGCTGCACTCAATGGAGGGGCGGGCACCAGTGTCTTAATGCTGTCTTAAGTAGTGTAGGAAAACGGCTCAACC  
CACCCTGCCCAGAAATGAAGTATAAGAATCTTATGGCAAGGGCCTTATATGACAATGTCCCAGAGTGTGCCGAGGA  
ACTGGCCTTTTCGCAAGGGAGACATCCTGACCGTCA TAGAGCAGAACACAGGGGGACTGGAAGGATGGTGGCTGTG  
CTCGTTACACGGTCGGCAAGGCATTGTCCCAGGCAACCGGGTGAAGCTTCTGATTGGTCCCATGCAGGAGACTGC  
CTCCAGTCACGAGCAGCCTGCCTCTGGACTGATGCAGCAGACCTTTGGCCAACAGAAGCTCTATCAAGTGCCAAA  
CCCACAGGCTGCTCCCCGAGACACCATCTACCAAGTGCCACCTTCTTACCAAAAATCAGGGAATTTACCAAGTCCC  
CACTGGCCACGGCACCCCAAGAACAAGAGGTATATCAGGTGCCACCATCAGTGCAGAGAAGCATTGGGGGAACCAG  
TGGGCCCCACGTGGGTAAAAAGGTGATAACCCCCGTGAGGACAGGCCATGGCTACGTATACGAGTACCCATCCAG  
ATACCAAAAGGATGTCTATGATATCCCTCCTTCTCATACCACTCAAGGGGTATACGACATCCCTCCCTCATCAGC  
AAAAGGCCCTGTGTTTTTCAGTTCCAGTGGGAGAGATAAAACCTCAAGGGGTGTATGACATCCCGCCTACAAAAGG  
GGTATATGCCATTCCGCCCTCTGCTTGCCGGGATGAAGCAGGGCTTAGGGAAGAAAGACTATGACTTCCCCCTCC  
CATGAGACAAGCTGGAAGGCCGGACCTCAGACCGGAGGGGGTTTATGACATTCTCCAACCTGCACCAAGCCAGC  
AGGGAAGGACCTTCATGTAAATAACAACGTGTGACATTCCAGGAGCTGCAGAACCGGTGGCTCGAAGGCACCAGAG  
CCTGTCCCCGAATCACCCACCCCGCAACTCGGACAGTCAGTGGGCTCTCAGAACGACGCATATGATGTCCCCCG  
AGGCGTTTCAGTTTCTTGAGCCACCAGCAGAAACAGTGAGAAAGCAAACCCCCAGGAAAGGGATGGTGTATGA  
TGTCCCTCTGCATAACCCGCCAGATGCTAAAGGCTCTCGGACTTGGTGGATGGGATCAACCGATTGTCTTTCTC  
CAGTACAGGCAGCACCCGGAGTAACATGTCCACGTCTTCCACCTCTCCAAGGAGTCTCACTGTGAGCCTCCCC  
AGCTCAGGACAAAAGGCTCTTCTGGATCCAGACACAGCTATTGAGAGACTTCAGCGGCTCCAGCAGGCCCTTGA  
GATGGGTGTCTCCAGCCTAATGGCACTGGTCACTACCGACTGGCGGTGTTACGGATATATGGAAAGACACATCAA  
TGAAATACGCACAGCAGTGGACAAGGTGGAGCTGTTCCTGAAGGAGTACCTCCACTTTGTCAAGGGAGCTGTTGC  
AAATGCTGCCTGCCTCCCGGAACCTCATCTCCACAACAAGATGAAGCGGGAGCTGCAACGAGTGAAGACTCCCA  
CCAGATCCTGAGTCAAACAGCCATGACTTAAATGAGTGCAGCTGGTCCCTGAATATCTTGGCCATCAACAAGCC  
CCAGAACAAGTGTGACGATCTGGACCGGTTTGTGATGGTGGCAAAGACGGTGCCCGATGACGCCAAGCAGCTCAC  
CACAACCATCAACACCAACGCAGAGGCCCTCTTACAGACCGGCCCTGGCAGCTTGCATCTGAAGAATGGGCCGGA  
GAGCATCATGAACCTCAACGGAGTACCCACACGGTGGCTCCAGGGACAGCTGCTGCATCCTGGTGACCACAAGGC  
CCAGGCCCCACAACAAGGCACTGCCCCCAGGCCTGAGCAAGGAGCAGGCCCTGACTGTAGCAGCAGTGATGGTTC  
TGAGAGGAGCTGGATGGATGACTACGATTACGTCCACCTACAGGGTAAGGAGGAGTTTGAGAGGCAACAGAAAGA  
GCTATTGGAAGAAAGAGAATATCATGAAACAGAACAAGATGCAGCTGGAACATCATCAGCTGAGCCAGTTCAGCT  
GTTGGAACAAGAGATTACAAAAGCCCGTGGAGAATGACATCTCGAAGTGGAAGCCCTCTCAGAGCCTACCCACCAC  
AAACAGTGGCGTGAGTGCTCAGGATCGGCAGTTGCTGTGCTTCTACTATGACCAATGTGAGACCCATTTCATTTT  
CCTTCTCAACGCCATTGACGCACTCTTCAGTTGTGTGAGCTCAGCCAGCCCCCGCAATCTTCGTGGCACACAG  
CAAGTTTGTGATCCTCAGTGACACAACTGGTGTTCATTGGAGACAGCTGACACGGCAGGTGACTGCCAGGA  
CATTGCAACAAGTCACTGAACCTCCAGCAACCAGCTCTGCGAGCAGCTCAAGACTATAGTCATGGCAACCAAGAT  
GGCCGCCCTCCATTACCCACAGCACCACGGCCCTGCAGGAAATGGTGCACCAAGTGACAGACCTTTCTAGAAATGC  
CCAGCTGTTCAAGCGCTCTTTGCTGGAGATGGCAACGTTCTGAGAAGAAAAAAGAGGAAGGGGACTGCGTTAA  
CGGTTACTAAGGAAACTGGAAATACTGTCTGGTTTTTGTAATGTTATCTATTTTTGTAGATAATTTTATATAA  
AAATGAAATATTTTAACATTTTATGGGTCAGACAACTTTCAGAAATTCAGGGAGCTGGAGAGGGAAATCTTTTTT  
TCCCCCTGAGTGTCTTATGTATACAGAAAGTATCTGAGACATAAACTGTACAGAAAATTTGTCCACGTCCTT  
TTGTATGCCCATGTATTCATGTTTTTGTGTTGTAGATGTTTGTCTGATGCATTTTATTAAAAAACCATGAAT  
TACGAAGCACCTTAGTAAGCACCTTCTAATGCTGCATTTTTTTTGTGTTGTTTAAAAACATCCAGCTGGTTATAA  
TATTGTTCTCCACGTCCTTGTGATGATTCTGAGCCTGGCACTGGGAATCTGGGAAGCATAGTTTATTTGCAAGTG  
TTCACCTTCAAATCATGAGGCATAGCATGACTTATTCTTGTGTTTGGAAACTCTTTTCAAACCTGACCATCTTAA  
ACACATGATGGCCAAGTGCCACAAAGCCCTCTTGCGGAGACATTTACGAATATATATGTGGATCCAAGTCTCGAT  
AGTTAGGCGTTGGAGGGAAGAGAGACCAGAGAGTTTAGAGGCCAGGACCACAGTTAGGATTGGGTTGTTTCAATA  
CTGAGAGACAGCTACAATAAAAGGAGAGCAATTGCCTCCCTGGGGCTGTTCAATCTTCTGCATTTGTGAGTGGTT  
CAGTCATGAGGTTTTTCCAAAAGATGTTTTTAGAGTTGTAATAACCATATTTGCAGCAAAGATTTACAAAGGCGTA  
TCAGACTATGATTGTTTACCAAAAATAGGGGAATGGTTGATCCGCCAGTTGCAAGTAGAGGCCTTTCTGACTCTT

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**FIGURE 398B**

AATATTCACTTTGGTGCTACTACCCCCATTACCTGAGGAACTGGCCAGGTCCTTGATCATGGAACTATAGAGCTA  
CCAGACATATCCTGCTCTCTAAGGGAATTTATTGCTATCTTGACCTTCTTTAAAACTCAAAAAACATATGCAGA  
CCTGACACTCAAGAGTGGCTAGCTACACAGAGTCCATCTAATTTTGGCAACTTCCCCCCCCGAATTC

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**FIGURE 399**

MKYKNLMARALYDNVPECAEELAFRKGDILTVIEQNTGGLEGWWLCSLHGRQGIVPGNRVKLLIGPMQETASSHE  
QPASGLMQQTFGQQKLYQVPNPQAAPRDTIYQVPPSYQNQGIYQVPTGHGTQEQEVYQVPPSVQRSIGGTSGPHV  
GKKVITPVRTGHGYVYEYPSRYQKDVYDIPPSHTTQGVYDIPPSSAKGPVFSVPVGEIKPQGVYDIPPTKGVYAI  
PPSACRDEAGLREKDYDFPPPMRQAGRPDLRPEGVYDIPPTCTKPAGKDLHVKNCDIPGAAEPVARRHQSLSPN  
HPPPQLGQSVGSQNDAYDVPRGVQFLEPPAETSEKANPQERDGVYDVPLHNPPDAKGSRDLDGINRLSFSSTGS  
TRSNMSTSSTSSKESSLASPAQDKRLFLDPDTAIERLQRLQQALEMGVSSLMALVTTDWRCYGYMERHINEIRT  
AVDKVELFLKEYLHFVKGAVANAACPELILHNKMKRELQRVEDSHQILSQTSHDLNECSWSLNILAINKPQNK  
DDLDRFVMVAKTVPDDAKQLTTTINTNAEALFRPGPSLHLKNGPESIMNSTEYPHGGSQGQLLHPGDHKAQAHN  
KALPPGLSKEQAPDCSSSDGSESWMDDYDYVHLQGKEEFERQQKELLEKENIMKQNKMQLEHHQLSQFQLEQE  
ITKPVENDISKWKPSQSLPTTNSGVSAQDRQLLCFYDQCETHFISLLNAIDALFSCVSSAQPPRIFVAHSKFVI  
LSAHKLVFIGDTLTRQVTAQDIRNKVMNSSNQLCEQLKTIVMATKMAALHYPSTTALQEMVHQVTDLSRNAQLFK  
RSLLEMATF



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**FIGURE 400**

GGCACGAGGTGATTTTCCTACTCCACTGTTACTGGANCCACCAAGGCAGGAAGTGTGTCTCTTTACCACTACAGT  
TCCTGTATCTTTTAGGTGCGTAGTATTTCTTGGTGAGTCAGTCAGTCTCCAGACTCAGTCATTTTTCTCTACATT  
ACACATTCTTTCACATTCTTCTCCCACCAGTCTTCCTAGACTTGTTTCATTCTTCCCATCTTGTCTCTATGTAT  
CTCTTCCCACCATTTCATTTTCCAGATAGCATCTAGACTGTTGTGTTAAAAAGCAAACTCCTTTCACACCACATT  
CCATTAAATGCCTTCCCAGTGGCCTTTGAACACCAAACCAGGCCTTTAAGGCTATGTCATCTCCTACCATTGATC  
TCAGACCTAGCTGCAGTTGCACAATAACAACCCCTGGCTCAAGTCTTCTGCACACATTGTTCCCTCACAGGCAGGA  
ACCCTATGGTGACTGATCAATAATTAAAACCTTGCCCTGGGGCCAGGCACAGTGGCTTATACCTATAATCCTAGCAC  
TTTGGGAGGCCAAGGTGGATCAGTTGAGCCCAGGAGTTACAGACCAGTCTGGGCATCATAGAGAGACCTTGCCCTC  
TACTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 401**

CTCGAAATTAACCCCTCACTAAAGGGAACAAAAGCTGGAGCTCCACCGCGGTGGCGGCCGCTCTAGAACTAGTGGA  
TCCCCCGGGCTGCAGGAATTCGGCACGAGGGCAAAATCCCAATATATAATTCTATACCTAGTAAAGATTGTAAAT  
AACTAAAACAAAATGATAAGAGCTGTGAAGTGAATTTGTATTGCTTACAGAAATCATGAACTGAATTTTCTTCTC  
TTTTTAAAGTGAGCATAAAGACTTAAGTGTATTGTTACCAGAGATATATTTAGATAGTATACATCATTTTGGCAG  
GTAATCTTCTAGAACCTTTTCATGTACTGTTTCCATCAAGGGAGGGAAAGAAATAGAAAATATAATTTTATCTATA  
TTTTCTTAAATATATCAATCTGTGCACACTCTTTCAGTTTTTTAATTACTCATGTAATATATGACTACATTTT  
GCTTGTGTGCTTTTTTGAAAACCATCTTCAGTCCCAATATCCTCTGTAGAAGTAATAGTTTTAACTCTCCTAGATC  
TTCITTTTAGAGTGTTTTTATGAGTGTTTAATGTAGGAATGTGTATATATTATCTACAGCCACAGGAAATGTATAG  
TTACGATTTTTTACATACGTGTATGTATATTATTGTACAACCTTGCTATTTCTACTTGGGAGTTTTTTATTTTGGTA  
CATTACATTTTACCTAATCTCTTGTGCACTGTCCAACAGTACTTTGCCTATAATAGACACTTAAGGAAGTTTTCC  
TTCTTTTTATTCCTTTATAATTACCAACNATGCTGAAAGGAACATCATCCTACATGAGCCCTTTTTGTACATATA  
AGGCTCT

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FIGURE 402A

GGCACGAGGCTGCGCTCGGGGGTCCGGCGTCCAGGCTCGGAGCGCGGCACGGAGACGGCGGCAGCGCTGGACTAG  
GTGGCAGGCCCTGCATCATGGAACCTCTTCTAATGCAAGTGGTACTTTTGCCATACGCCTTTTAAAGATACTGT  
GTCAAGATAACCCCTTCGCACAACGTGTTCTGTTCTCCTGTGAGCATCTCCTCTGCCCTGGCCATGGTTCTCCTAG  
GGGCAAAGGGGAAACACCGCAACCCAGATGGCCCAGGCACTGTCTTTAAACACAGAGGAAGACATTTCATCGGGCTT  
TCCAGTCGCTTCTCACTGAAGTGAACAAGGCTGGCACACAGTACCTGCTGAGAACGGCCAACAGGCTCTTTGGAG  
AGAAAACCTTGTCAGTTCTCTCAACGTTTAAAGGAATCCTGTCTTCAATTCTACCATGCTGAGCTGAAGGAGCTTT  
CCTTTATCAGAGCTGCAGAAGAGTCCAGGAAACACATCAACACCTGGGTCTCAAAAAAGACCGAAGGTAAAATTG  
AAGAGTTGTTGCCGGGTAGCTCAATTGATGCAGAAACCAGGCTGGTTCTTGTCATGCCATCTACTTCAAAGGAA  
AGTGGAATGAACCGTTTGACGAAACATACACAAGGGAAATGCCCTTTAAAATAAACCAGGAGGAGCAAAGGCCAG  
TGCAGATGATGATCAGGAGGCCACGTTTAAAGCTCGCCACGTGGGCGAGGTGCGCGCGCAGCTGCTGGAGCTGC  
CCTACGCCAGGAAGGAGCTGAGCCTGCTGGTGTCTGCTGCTGACGACGGCGTGGAGCTCAGCACGGTGGAAAAA  
GTCTCACTTTTGAGAACTCACAGCCTGGACCAAGCCAGACTGTATGAAGAGTACTGAGGTTGAAGTTCTCCTTC  
CAAAATTTAACTACAAGAGGATTATGACATGGAATCTGTGCTTCGGCATTGTTGGAATTGTTGATGCCTTCCAAC  
AGGGCAAGGCTGACTGTGCGCAATGTCAGCGGAGAGAGACCTGTGTCTGTCCAAGTTCGTGCACAAGAGTTTTG  
TGGAGGTGAATGAAGAAGGCACCGAGGCAGCGGACGCTGAGCTGCTTTGTAGTTGCAGAGTGCTGCATGGAAT  
CTGGCCCCAGGTTCTGTGCTGACCACCCTTTCTTTTCTTCATCAGGCACAACAGAGCCAACAGCATTCTGTTCT  
GTGGCAGGTTCTCATCGCCAATAAGGGTGCACCTACCGTGCCTCGGCCATTTCCTCTTCTGTGCTCCCGAGAT  
CCCCACTACAGCTCCAAGAGGATGGGCCTAGAAAGCCAAGTGCAAAGATGAGGGCAGATTCTTACCTGTCTGCC  
CTCATGATTTGCCAGCATGAATTCATGATGCTCCACACTCGCTTATGCTACTTAATCAGAATCTTGAGAAAATAG  
ACCATAATGATTCCCTGTTGTATTAAAATTGCAGTCCAAATCCCATAGGATGGCAAGCAAAGTTCTTCTAGAATT  
CCACATGCAATTCACCTCTGGCGACCCTGTGCTTCTGACACTGCGAATACATTCTTAACCCGCTGCCTCAGTG  
GTAATAAATGGTGCTAGATATTGCTACTATTTTATAGATTTCTGGTGCTTAGCCTTATAAAAAAGGTTGTAAAA  
TGTACATTTATATTTTATCTTTTTTTTTTTTTTTTTTCTGAGACGCAGTCTGGCTCTCTGTGCGCCAGGCTGGAG  
TGCAGTGGCTCGATCTCTGCTCACTGCAAGCTCCGCCTCCCGGGTTCACGCCATTCTCCTGCCTCAGCTCCCGA  
GTAGCTGGGACTACAGGCGCCCGCCACCACGCCCGGCTAATTTTTTGTATTTTATAGAGACGGGGTTTCACCG  
TGTTAGCCAGGATGGTGTGATCTCCTGACCTCGTGATCCACCCGCTCGGCCTCCCAAAGTGCTGGGATTACAG  
GCTTGAGCCACCGCGCCCGGCTATATTTTATCTTTTATCTTTTCTTTGACATTTACCAATCACCAAGCATGCAC  
CAAACACTGCTTTAGGCACTGGGGACACAAAGGGGACAGAGCCATCCTCCTTTGACACCTGGTCTTCAGTTCTGT  
GCCCAACGTATATAGTTTGGACAATGACCAGGTTGGACTGTTTAAATGTCTTTCAACTTACCACGTAATCCTCTTG  
TAGGGATCACATCTTTCTTTATGATATTGTATTTCTCTACCTCTAACAGTAAAAATTCATTCAACCTTAAAGC  
TCACTTCAAATTTCTTTTGAAGAAGTTTTCTTTCTCCGCAACCAGATGTACATATTTGAACTCTCTTTGTACT  
TGGAGGGCACTTCTTTCTGGTAGTTCTTTATTTTATTAATCTCTGTATCCTTAGATAGTCTCCAACAACCA  
AAGGTTGGGACTCTGTCTTACATATCTGGGTGCCCTCATAGTGCAGTAATAAGTAAGTTGATTATATACGAGCT  
ATGTAACCTATATTTTAAATGGTTGGATATCACTGAGTTTTTTTTTTTAAAGATTTTTTTATTGAGGTAACTT  
CACATAACATAAAATTAATATTTTAAAGTGAGAAGTTCAGTGCCACTTAGTATTGTTAACAATGTTGCATAACC  
ACCACCTTTATTTAAAGTTCCAAAAAAATGTTCTCCTCTAAAAGGAAACCCCATCCCATTAAGCAGATACTCTC  
CATTCCTTCTTCTCCAGCCCCCAGCAACCACCAATCTGCTTCTGTCTCTATGGTTTTATCTATTCTTGCTAT  
TTTATATAAATCGAATTGTATGAGACCTTTTGTGTCTGGCTTCTTCACTTAGTACAAGTTTTTGAGATTTATTT  
ACATAGTAGCATGTATCAACACTTCATTTTATGGCCAAATAAAATTGTATTATGTGTTTATAGCACAAATTTATT  
TATCCACTCATTTCATTGATGGACTTTGGGTTGTTTCTGACTTTTGGCTATTGGGAATAGTGCTGCTATGAATGTT  
TGTGTACCTGTATTTGTTTGAATGCCTATTTTGCAATCTCTTGGGTATATATCTAGGAGTGGAAGTCTGCTGGGTCA  
TATGTTAATCTATGTTTAGCTTTTTGAGGAACAGACAACTGTTTTCCACAGCAGTTGAACCATTCACATTCC  
CACCAGCAATGTATGAGAATTCCAATTTCTGTCCACTTCTCACCACACTTATTATTTTCTTTTCTTTT  
AAAAAAATAAGTTATGGCCATCTTAGTGGGTGTGAAGTGGTATCTCATTGTGTTTTTTATTGCAATTCCTATG  
TAATGAGCTAGAACTAAAGTACAACTAGATGGGACATCCAGTCCCTTTGATAGATAATGCTGAGTAAAAAATG  
AGATGAAAGACATTTGTTTGTGTTTTAGAACATGAGTGACAGTTTGTTAAAAAGCTTTAGAGGAGGAATGAAAACA  
AAGTGAAGTACACTTAGAAAAGGGCCAAGTGACATCTTGATGTCAAGTGCCTAGTTCAGTATCTTTTTTTTTT  
TTTTTTTTTTTTTTTGGAGACAGTGCCTCACTCTGTACCCAGGCTGGAGTGTAGTGGCATGATCTGGGCTCACTGC

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**FIGURE 402B**

AACCTCCTCCTCCTGGATTCAAGCAATTCTCTTGCTTCAGCCTCCCAAGTAGCTGAGACTACAAGCACCCACCAC  
CACACCCGGCTAATTTTGTATTTTTCAGTAGAGACGGGGTTTCGCCACATTGGCCGTGTTGGTCTTGAACCTCTG  
GCCTCAAGCAATCCGCCTACCTCAGCCTCCCAAAGTGCTAGGATTACAGGCATAAGCCACTGAGCCCAGCCCTAG  
TTCAGTATCTTTTATGTAAATTATAAACATCTGCAACATTATGTATCATATGCAGATACTTATTGCATTTCTTTT  
ATTAGTGGTGAAAGTGTTCTATGCATTTATTGGCTCTTGAATTTCCCTCATCTATGAATTGTCATTCACACACCTA  
CTTTTCTGCTTCGTTTTTACATATGCTTTGCCTATTAAAGATATTATCCCTCTGTTTTATATTTTCTCTCATT  
TTGTATTGCCTTTTAAATTTTGTTATGATGTTTCATTAATAAACAGTGTTTTGTTTTCTCTATAAAAAAAAAA  
AAAAA

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**FIGURE 403**

METLSNASGTFAIRLLKILCQDNPSHNVFCSPVSISSALAMVLLGAKGNTATQMAQALSLNTEEDIHRAFQSLLT  
EVNKAGTQYLLRTANRLFGEKTCQFLSTFKESCLQFYHAELKELSFIRAAEESRKHINTWVSKKTEGKIEELLPG  
SSIDAETRLVLVNAIYFKGKWNEPFDETYTREMPFKINQEEQRPVQMMYQEATFKLAHVGEVRAQLLELPYARKE  
LSLLVLLPDDGVELSTVEKSLTFEKLTAWTKPDCMKSTEVEVLLPKFKLQEDYDMESVLRHLGIVDAFQQGKADL  
SAMSAERDLCLSKFVHKSFVEVNEEGTEAAAASSCFVVAECCMESGPRFCADHPFLFFIRHNRANSILFCGRFSS  
P

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**FIGURE 404**

ATTTTGA CTGGCAAAATGTGGCAGATTT CAGGGATGCAGGTGGATCCTTAACTGAGGTCAAGGTGGAAGAGGAAG  
AAAGGGATCCGCAGAGTCCTGAATTTGAAATTGAGGAGGAGGAAGAAATGTTGTTCATCCGTCATACCAGATTCCA  
GGAGAGAAAATGAACTTCCCGATTTCCCCACATTGATGAGTTTTTTACCTTAACTCAACACCATCTAGATCTG  
CATATGATGAGCCTCATTTGCTCGTAAATATTGAGAAACAGAACTAGAGTTGGAAAAACGACGACTGGATATCG  
AGGCCGAAAGGCTGCAGGTAGAAAAGGAACGCCTACAAATCGAGAAAGAGAGGCTGCGGCATTTAGACATGGAAC  
ATGAGCGGCTTCAGCTAGAGAAGGAGCGGCTGCAGATTGAAAGAGAAAAGTTGAGGTTACAGATAGTCAATTCAG  
AGAAACCGTCCTTTGGAAAATGAACTTGGTCAAGGAGAAAAATCCATGCTTCAACCACAGGACATAGAAACAGAGA  
AGTTAAAACCTTGAGCGAGAACGCTTGCAACTGGAAAAGGATAGGCTGCAGTTTTTTGAAGTTTGAATCTGAGAAGC  
TGCAGATTGAAAAGGAACGCTTACAGGTAGAGAAAGACAGACTTCGAATTCAGAAAGAAGGACACTTGCAGTAGAT  
TTTTCCAGGCTTCCATTTAGCAAATGTTTGAAAAC TCTAGATTTTTCTCATATCAGGTGATATAATGATGGTTGC  
TGGATTAGCTGTGGTTTCTTGTCTAATGTCAGTGTTCAGTAGGAAAAAGTTATATGTGGATAACTGTATGCCTAA  
GTAGTATATAAAAGCTGTGCCCTAGCGTAAACAGTATAGCAGAACTTACTGTGCTGGACTCTTTACCTTATAAT  
ATTACATAGAGTCTTGTATTGTCTGTGTACCCAGAGTTTACAATTATGTCCATATAAAATCTAGCCCAGAAGTT  
CTCATCTGGGGTAGATTTTGGCCTTCAGAAGACCAATTTGGTGTATGTCTGGAGACATGTTGGGTTGTCAAACTG  
GGGTGGGGAAAAGGTTGCTACTGTGCAATGCATACCTCCTCAACACCCCCCACACTCAGTAAAGAATTTTCCAA  
CCCAAAATATCATTAGTCCTGAGGTTGAGAAACCTGTCTAGCCTAACTGTATACCTCTATAGCTATGTTTTAT  
AGTTTTAGAATATTAAAACCTCAGATATTTATGTGGGTAGGTACTTAAATGGCCAAAAACTTTAACTATGAAATG  
TTACTGTGTAGTATATTGAATATAGGAAGTGATGAAGATTATAGGTATTTTATTCCCATGTTTCCATCTATAAAT  
AGCCTTCTCAGATTCAGAAAACAATACAGAGAACATCAGAAATTTTCTAAAATGGGTCACTTTGAAAAGAATTCT  
TTTTCTCACTATTAATGCTTTAGAAGCAAGACGCAATTTTAAAGCTTTAGTTCCTTTTCTTTTCAGTCATTGTCTT  
AGTTTGGGTACAAAAATGTCATTTTCAGTAATGTACTGAAATCTTATAAGTGAATAGTTGAAGCTAGTAAAAATGA  
TACCAGTATAAAAAATGGTACTTGTAGTCCATGAGCTTGAACCCAATGACTGATTGTTTGACTTTTAAATAAGTA  
ATAGCAGCCATTTGGGAGTAGGGGGTAGGTGGGGAAGATGTACTCCGTATCAAATAATAATGATGTTGAAATAAT  
GATAGTAGGTATGTATTATGGATTGGAGAAGCACTTATTACACTATCTAACCTAATATGTAGAACAATTCTTGAG  
AGTTGTATCTGTCGTTATTTCTGAATGTGAAGCTCAGAGAAGTGACACAGAGTAAATGGCTGATCTTCTATATTG  
TAGTATATTTTGTCTTCCCTCTTCCCTGAGGAACAAAGCACGTATCTTTAGTCTCTTTGATATTTATTCTGAGA  
CCAAGGGCTTGCTTGACCTGATGATTTTCTTCAGCTCTCTGAAGGTGCTTTTTCCACAATCCAAGTGATTCTGA  
TACACACTAAAGTTGAGAATCACTGCACTAGATCACTTTGTGTTTTCTGATTTTCAAGGTTGATACGTAGCTTTA  
ATACAGCTCCTCTGTTGACAGTTATTACTTTAATTTTGCAATTTGTTCCTTGTAAGAATGGCTGGAACTGTGTGT  
TGACATTTGAGGATGGGTATGCAAGGAAAAAATATACTTCTGTTTACTTACTCTGACTTTGAAATAGTGTTATTT  
TTCTATATCTGAAATAAATGCTTCTACCATAGAAAT

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**FIGURE 405**

MLSSVIPDSRRENELPDFPHIDEFFTLNSTPSRSAYDEPHLLVNIEKQKLELEKRRLDIEAERLQVEKERLQIEK  
ERLRHLDMEHERLQLEKERLQIEREKLRLQIVNSEKPSLENELGQGEKSMQPQDIETEKLLERERLQLEKDRL  
QFLKFESEKLQIEKERLQVEKDRLRIQKEGHLQ

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**FIGURE 406**

GATCGAATTTAATACGACTNCTATAGGGAATTTGGCCCTCGNGCCAAGNAATTCGGCACGAGGACATCCATGGCA  
TGGCTGACAGCTTCCGTGACCAACATGGTACAGCCCTTCCTACCTTCTCATTTATTCTACTTTGTAACCTAACAG  
CATTATGCCAACGATAATTTAACTAGAAAAAGTTCCTGAGAGAATAACAAATCTGTGATTTTATTATGTCCTTTA  
TCATGTTTTGCAGCTTTCAGATTCAGATGTCAATAATTTGTTTCTATGATCAGAGTATATAAATCCCATGCAAAC  
ATATCTCAGCATAACTGATTTTGTTTCTAAATAATTAAACAGGATAAAATGTTATTTGTTGTAAGCTGTTGACAT  
TTGTAAGGAAATTTTGTTTCACTGAATATGTTTAGAGATGCCGCCAGAACATTAACCATTGTTTCATTTTTATGT  
AAGTTGAAGAAAAATGAAGCTAGATAGCATGTTCTCCATTTGCAGTCTACAAAGGGGAATTTTATTGCTTAAATT  
AAAGTTTCATTTTCTGGCCTGTGCAAGAGACTTTTATATCTAAAATATGGATGTACGTTTTTCATATTTTAGAGT  
TCATTGTATGGAAAAATACCATCAAAGTTGACCAAAGATTTTGAAAATCCTTACCAGTTGTTTGTCATATGTTA  
AAGTCTTATGGGTAATTTTATTTATTTTATCTTGGTCTCTTGCTGGTTATTGGCAGACTCAGTCTTTCTGTTTTC  
ACAAAGAACTCATGAAGAGGACGATAGGGGAAACCCACGINTGCCTTTGAGGCTAGGGACTATGTTGTAAGNTCA  
CCCTGTGATGGNCAGGTCATACAGTCATGG



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**FIGURE 407**

CTCTTACAGCAAATATCACTACCTGACATATTTTACTAGAATGTAAGCTCCATGAGGAGGGGATTTTGTTTTGTT  
TACCATGGTGTTTTTAGTATTCAGAACATGCCTGCTTACATAGTAGTTGCTAAAAAATTTTTTGTTAAATGAAT  
AAGTTGAATCATGTTGTTCCAGTGTAGACAGAATAGGTATATGTGGTTGAAAAATGAACAGCACAAAGTTAGCT  
CCCCAAAAATGGCAAAGTGAAATAAAGAAACATTTCTGAAGAACATTGTTGAACTGTAATCCCAGCACTTTGGGA  
GGCTGGGGCAGTTGG

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**FIGURE 408**

AAAAAAACAAAAACAAAAACAAAAACCTTCCAAAAGAAGTTTGAGATAATTTTATGTTTAGAAAAATTAG  
AAATTGGATTGAGTAAAATTTACATATTTTACACAAGAGGACTAACATCTTTATAATATTTAACCTTTCAGTAAA  
TTTATGTTTTATGTTTCTCAGCCTATCTTTTCTAGTATAGGTGATTTTTTTAGTGTGGTTACTATTGTAAATGAG  
ATCCTACTACTTTAAAAAATGAAAATTAAATCTATCGCTTTTATGACTTTAAACATTAGACTTATGTAAGTGTA  
AACATTATTTAAAAACATAATGTAGAAAATTAAAGTCCCCATAATTAAATCCCTTTCCCCCAGAAAAAGTCAA  
CAGCATATTCATCAGTTTTTTCCTAAAGTATGTTT TAGCACTTTGACCATATGAGACAACCCTTCTGCTGTTAGC  
ATTTTTCTCTTTGCAATAGATCTTCCTATGTCAGTACACATCAATCTACCTCATTCTTACCTCTGCATAAGAGAG  
TAGTGTGTAGTTGTATAATAGTTTAACTTGGCGATTGGTTATTGATTTTGTAAGTAGCCAGTTACTGAATTATTC  
TAAAGGTTTTGCTGTTGTTAATTTCTTTTCGCTTTTTCAGTTGGGTAATAGTTCTGGGTAGGTTGATAATTTTAT  
TCCCATATTTGTAATCTTATTTCACTTTCTCAACTCATCACATTGACTGGTACITTTAGAACAAATGTTAAAAAAC  
ATTTACATAATTTGTGCTGATATTGTACATTATTTGATATATATATATTTTTTTTACTTAGAAGAGTGTTTCTCCA  
AAACTATAAATTTGACTCTTAGTGTAAAATAATCTTAATATTTGAATTATACATTCAGGTTATGCCCTCTATTTTC  
TAGTTTGATGAAAATATTATTAGTAAATGGATGTTGGGGTTTTATTAAATGGCTTTTTTCCACATCTGTCAAGATG  
ATCAACTGGCTTTTCTCTATTATGACTTTAGATGAATCGTTTTAATAGATTTGCTAATGTTAAGACATCTCTGCA  
TTTCTACAAGAATCTGATGTAGTCATAGTATACTATTCTTTTAAATATACATCTCCTTTCAATGTTAACAGTGGTT  
ATTTATGATTGGTTGGTCCATAGTAGATTTTTATTGTTGTTTCTTATCTGTACTTTCTGATTTTTCTACAAAGA  
TTGTGTATTACTTGTATAATAAAATAAGAGCTTTAAATTGTGAAATCTTCTGGATTGGTTTTCTCATTTTAT  
TATGGAATTTTTCATA

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**FIGURE 409**

GGCACGAGGCAAAGAGCTGCCTAAAGAACTGGTAGCTGGAGCAAACCTGCAGAGATCAAGATGACCCTAGTCCAC  
GGAACCAGCAGCCCAGGTCAGCCACATTCAGGAGCACACCGAGGCACGGCAGGGAGAGCAAAGTTGCTGGCCCC  
AATCATTCCTCCTTTTCAGGGCAGGAGAGGCAGAAGCTCACTCTTTAGACATGTTCTTGATGGTCTTGTGCTCTT  
TCATGGCCTTCTCCCAATCGCTGCCATTGAATTCC TCAGTGACCATACTCCGCACAGTGCCCTCATCCAGGCAGT  
GGGGGGCAATTCCGAAGCCTCCGGGGTTTGATCGTGGAGTATAGAAGCTCTGAACGCCACATCTCTTACAGAAGG  
TATGCTGGGCTTTGTGAGTATTGAACGTGTAAGTCGTTATGTGCTCAGCTCCCTTCAGGAGCTTGAAGCGAGAAG  
CCTGGAACAATGAAGTGTCTATTCTGCTTCTTCTTGCNAATGCTGCAACTACAGAAAGACAGAGCAAATTCAG  
ATTG

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**FIGURE 410**

ATTTGGAAGATTTTGTTATGGTGTCACTGTCATTTTGACATACCCTATGGAATGCTTTGTGACAAGAGAGGTAAT  
TGCCAATGTGTTTTTTGGTGGGAATCTTTCATCGGTTTTCCACATTGTTGTAACAGTGATGGTCATCACTGTAGC  
CACGCTTGTGTCATTGCTGATTGATTGCCTCGGGATAGTTCTAGAACTCAATGGTGTGCTCTGTGCAACTCCCCCT  
CATTTTTATCATTCCATCAGCCTGTTATCTGAAACTGTCTGAAGAACCAAGGACACACTCCGATAAGATTATGTC  
TTGTGTCATGCTTCCCATTGGTGCIGTGGTGATGGTTTTTGGATTTCGTCATGGCTATTACAAATACTCAAGACTG  
CACCCATGGGCAGGAAATGTTCTACTGCTTTCCTGACAATTTCTCTCTCACAAATACCTCAGAGTCTCATGTTCA  
GCAGACAACACAACCTTTCTACTTTAAATATTAGTATCTTTCAATGAGTTGACTGCTTTAAAAATATGTATGTTTT  
CATAGACTTTAAAAACACATAACATTTACGCTTGCTTTAGTCTGTATTTATGTTATATAAAATTATTATTTTGGCT  
TTTATCAAGACTTGGCTTTTATGAGTAGTGCAATATAAAAGATAAAGAAAAGAAAAATTGATGTTTTTCACCTTTA  
ACTG

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**FIGURE 411**

FGRFCYGVTVILTYPMECFVTREVIANVFFGGNLSVVFHIVVTVMVITVATLVSLIDCLGIVLELNGVLCATPL  
IFIIPSACYLKLSEEPRTTHSDKIMSCVMLPIGAVVMVFGFVMAITNTQDCTHGQEMFYCFPDNFSLTNTSESHVQ  
QTTQLSTLNISIFQ

**FIGURE 412**

AA

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**FIGURE 413**

MPVAVGPYQSQPSCFDRVKMGFVMGCAVGMAAGALFGTFSCLRIGMRGRELMGGIGKTMMQSGGTFGTFMAIGM  
GIRC

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**FIGURE 414**

AACATGTAAGACTACTGTTTACAAATTTGGACATTTTCCTTTCAAACACATTTTTCATGAATATATTATAGGAAAG  
TTAAAACCATCTCTATTCTAAAAGGAAAATCTACCATTTTGCTCAGAGAGAAAAGTTACTGAGTTTGTCTATGTGA  
TTTTAAGTAGTATTGATTAGAGTATTAAAGAAATGGGGTACTTCAAGTAACATAACACCTGATATTTAAATCTAA  
GTTTTAAAAATGTATTTACCCATTGTTAATGAAAGTGTTTCTAAGATGTAACCCCTGGTTAGCTATTCCGTCTT  
CTTGCCCTTGATGGGTTGACTGGTGGTGAATGTGCTGTTGTCATTCCATTGACAGTTCGGGATTGTGGTGGTCTC  
AGCATATTAGCATAGATGTGAGTTGTAATTTTATAGGATTATGGAAGTGAATTGTGGAACCTCCTGCAGGGCAGA  
CTCTGGAGGCTAGCTTTTTAGAAAACATAACCTCCAGTATAAACTTAATTTCTGTCATTGCCCCATTTTCTTG  
AAAGTTAAGTGCCAGAAAAGAAAAGGATCGAGTCTCTCTTTTCTTTCTACAATAAAACAGAAATATACTTTCTCCA  
GGGTTGGTGGTGGGTTCCTTTTTCTGTTGAGGTGGATTCTGAGATTGAGGAGGGGCTGGAGAAGACAGAGCATG  
AGGGAAAGAGACTGAGAACATACTCAGGCTGCCCTCGCCCTCTTTTCCCTTTTCGTGCTCCTGTCTCCCATCTAGG  
AGGACCAGGGCTACCAGTCCTTGTGGGGACAAGTTTGAGTAGGATCAAGAGACATGTACTGCGCCAGGGCCGTGG  
GTTACAACCTGTAATCC



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**FIGURE 415**

MKVFLRCNPWLAIPSSCLDGLTGGECAVVIPLTVRDLWWSQHISIDVSCNFIGLWNCNCGTPAGQTLASFLN

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**FIGURE 416**

TGCAGCTAGTGTGTCAACTCAGCGTTTCTCCTCTCGTCCCTGGAAGAGCTAAAGATGGCTGAATTTCTAGATGAC  
CAGGAAACTCGACTGTGTGACAACTGCAAAAAGAAATTCCTGTGTTTTAACTTTACCATCCATGAGATCCACTGT  
CAAAGGAACATTGGTATGTGTCTACCTGTAAGGAACCATTTCCCAAATCTGACATGGAGACTCACATGGCTGCA  
GAACACTGTCAAGGTGACCTGCAAATGTAACAAGAAGTTGGAGAAGAGGCTGTTAAAGAAGCATGAGGAGACTGAG  
TGCCCTTTGCGGCTTGCTGTCTGCCAGCACTGTGATTTAGAACTTTCCATTCTCAAACCTGAAGGAACATGAAGAT  
TATTGTGGTGCCCGACGGAACCTATGTGGCAACTGTGGTGCATATGTCCTTGTGAAAGATCTGAAGACTCACCT  
GAAGTTTGTGGGAGAGAGGGGGAGGAAAAGAGAAAAGAGGTTGCCATACCTCCTAATGCATATGATGAATCTTGG  
GGTCAGGATGGAATCTGGATTGCATCCCACTCCTCAGACAAATTGAGGCTCTGGACCCACCCATGAGGCTGCCG  
CGAAGGCCCTGAGAGCCTTTGAATCAGATGTTTTCCACAATAGAACTACCAACCAAAGGAACATTACAGCCCAG  
GTTTCAATTCAGAATAATCTGTTTGAAGAACAAGAGAGGCAGGAAAGGAATAGAGGCCAACAGCCCCCAAAGAG  
GGTGGTGAAGAGAGTGCAAACCTTGACTTCATGTTGGCCCTAAGTCTGCAAAATGAAGGCCAAGCCTCCAGTGTG  
GCAGAGCAGGACTTCTGGAGGGCGTATGTGAGGCCGACCACTCTCATGGCGTCCCAGGTCTCTCAGTGACATA  
AAGGGTGCAGCTGACGAGATCATGTTGCCTTGTGAATTTTGTGAGGAGCTCTACCCAGAGGAACTGCTGATTGAC  
CATCAGACAAGCTGTAACCTTCACGTGCCTTACCTTCACTCAATACTGGCAGCTCTTCCCCCAGAGGGGTGGAG  
GAACCTGATGTCATCTTCCAGAACTTCTTGCAACAGGCTGCAAGTAACCAGTTAGACTCTTTGATGGGCCTGAGC  
AATTCACACCTGTGGAGGAGAGCATCATTATCCCATGTGAATCTGTGGGTACAGCTGGAAGAGGAGGTGCTG  
TTCCATCACCAGGACCACTGTGACCAACGCCAGCCACTGCAACCAACCATGTGACAGAGGGGATTCTAGACTG  
GATTCCCAGCCTCAAGAGACCTCACCAGAGCTGCCAGGAGGCGTGTGACACACCAGGGAGACCTGCTCTTGGT  
TACCTGGATGATACTAAGCAGGAAACAGCTAATGGGCCCACCTCCTGTCTGCCTCCCAGCCGACCCATTAACAAT  
ATGACAGCTACCTATAACCAGCTATCGAGATCAACATCAGGCCCCAGACCTGGGTGCCAGCCAGCTCTCCTTGT  
GTGCCGAAGCTCAGCAACTCAGACAGCCAGGACATCCAGGGGCGGAATCGAGACAGCCAGAATGGGGCCATAGCC  
CCTGGGCACGTTTCAGTGATTCGCCCTCCTCAAAATCTCTACCCAGAAAACATTGTGCCCTCTTCTCCCCTGGG  
CCTTCAGGGAGATACGGAGCTAGTGGTAGGAGTGAAGGTGGCAGGAATTCCCGGGTCACCCCTGCAGCTGCCAAC  
TACCGCAGCAGAACTGCAAAGGCAAAGCCTTCCAAGCAACAGGGAGCTGGGGATGCAGAAGAGGAAGAGGAGGAG  
**TAA**TGGTGTCTCCAGAGACTTTACATCGGTTTCTGTCTTCTGTGCACAGCAGCACTTGCCGCTGTGCAGGCCAC  
CTCTTTGGCTCTTTGGGTGGGAGAGTTTTTCCAGATTTTAGATTTTTCTAGGTTATGGCCATTTTGTGTCTTTG  
AGGTTGTGCTGTGGGGTTTGGGTTTGGGGAAGGGAGCAGGGTGGCGGTTGAGGAACGCTTCAGCCTTAGCTGC  
TACCTTTCCGCAGCAGTGAAATACAAGCTGCAGCCTCGGCTGCCAGGGCTCCCTTTTGACTTATTGTGCGCCACTG  
CCCCTTGGTGCTGTGTGGTCCCAGTGGAAGGAGGGGAAGATTTTGGAAACCTGGTAGCCACCAGTAAGGTGATTC  
TCTGCCCTGTTGGGGCTAAATTTGGGGGCTTTTGGGCAACCTCTCCGTGTACTGCGTCTGTCCACACTCGATTG  
GGCCCCAGGTGTGTATGAGGCGCTCTGGTAAGGTGCTCAGGCCAGTTGCAATGTCTGTCTAGTAACGAGGCTTTTG  
ATGTGTTGAGCTGGAGGTGAGTGGACCGGGGCTGTGTTTTAAGCTGCTTCCCTGGCATTGTCATCACTGCCCTC  
TGTTCCCGGGGAGCATGGATCTTTTGTCTCACTGCTTTCTAATGGGGAGGGCTGAGGGCTCCCTGTCCCCACA  
GCAGGTATGTTTGTCTGCCCCAGCCCCACACTTGCTCTGAAAACCAAGTGTGAGAGCCCTTCCCTTGTTTTT  
ATTTTACTGTTATAATAATTATTAACCTTCTTGTAAATAGAAATAAAGTTTGTACTTGAGTTTCAGCTC

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**FIGURE 417**

MAEFLDDQETRLCDNCKKEIPVFNFTHIHCQRNIGMCPTCKEFPKSDMETHMAAEHCQVTCKCNKKLEKRL  
KKHEETECPLRLAVCQHCDLELSILKLKEHEDYCGARTELCGNCGRNVLVKDLKTHPEVCGREGEEKRNEVAIPP  
NAYDESWGQDGIWIASQLLRQIEALDPPMRLPRRLRAFESDVFHNRTTNQRNITAQVSIQNNLFEEQERQERNR  
GQQPPKEGGEESANLDFMLALSQNEGQASSVAEQDFWRAVCEADQSHGGPRSLSDIKGADEIMLPCEFCEELY  
PEELLIDHQTSCNPSRALPSLNTGSSSPRGVEEPDVIFQNFLQQAASNQLDSLMLGSLNSHPVEESIIIPCEFCGV  
QLEEEVLFHHQDQCDQRPATATNHVTEGIPRLDSQPQETSPELPRRRVRHQDLSSGYLDDTKQETANGPTSCLP  
PSRPINNMTATYNQLSRSTSGPRPGCQPSSPCVPKLSNSDSQDIQGRNRDSQNGAIAPGHVSVIRPPQONLYPENI  
VPSFSPGPSGRYGASGRSEGGNRSVTPAAANYRSRTAKAKPSKQQGAGDAEEEEEE

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**FIGURE 418**

CCCTGCGCGGCTGCTGGACCGACGGGCGCACCCAGGTAGGGGGGCGGCTGAGCCGCGCAGTGCGGACCCTCGCGG  
GGAAC TGCGCCGCCGCCACC **ATGT**CTCAGGAAGGTGTGGAGCTGGAGAAGAGCGTCCGGCGCCTCCGGGAGAAGT  
TTCATGGGAAGGTATCCTCCAAGAAGGCGGGGGCTCTGATGAGGAAATTCGGCAGCGACCACACGGGAGTGGGGC  
GCTCCATCGTGTACGGGGTAAAGCAAAAAGATGGCCAAGAACTAAGTAACGATCTGGATGCCAGGATCCACCAG  
AAGATATGAAGCAGGACCGGGACATTTCAGGCAGTGGCGACCTCCCTCCTGCCACTGACAGAAGCCAACCTACGCA  
TGTTTCAACGTGCCCAGGACGACCTTATCCCTGCTGTGGACCGGCAGTTTGCCTGCTCCTCCTGCGACCACGTCT  
GGTGGCGCCGCGTGCCCCAGCGGAAGGAGGTATCCCGGTGCCGGAATGCCGGAAGCGCTACGAGCCAGTGCCAG  
CTGACAAGATGTGGGGCCTGGCTGAGTTCCACTGCCCGAAGTGTCCGGCACAACCTCCGGGGCTGGGCACAGATGG  
GGTCCCCGTCCCCCTGCTACGGGTGCGGGCTTCCCCGTGTATCCAACACGGATCCTCCCCCGCGCCGGGACCGGG  
ACCCGGATCGCCGCAGCACCCACACTCACTCCTGCTCAGCTGCCGACTGCTACAACCGGCGAGAGCCCCACGTGC  
CTGGGACATCCTGTGCTCACCCCAAGAGCCGGAAGCAGAACCACTGCCCAAAGTGCTCCACCCAGCAACCCCTC  
ACATTAGCAGTGGCCCCACTGTGGCCACCTGCTTGAGCCAGGTGGCCTCCTGGAAGACCTGGACAACCTCATCC  
TGGAGGACCTGAAGGAGGAGGAGGAGGAAGAGGAGGAGGTGGAGGACGAGGAGGGCGGGCCAGGGAG**TGAC**CCCC  
TGCCAGGTGCAGATACAAACCAGACACGGTCTGTGGCTACTTTGTGTTATTATAAGATATGAGCTCAAACCGAGA  
TATGAATGACCTTGGGGAGCCATCTGAGGCCAAGATATTGACGGGGGGGATTCTGGGTCCCATTTTCAGCGCCC  
AGGGTCACAGATCCACAGTGGGAAGTTCTGTGGGACACATTGGCACTGAGCCACAAAGAAGGTGTGGCCAGAACA  
ACTTGGGCTCCTGCTGACCAATGTCTCTAGGGCC TAGGGGACAGAGGAACACAGAGTCACAGCTTCAGGGGCCG  
AATGAGCATGGCGGCCTTCTGAGAGAATATGCCCCACCACGAAACTCAGCCCAGTAGACACCATCCTGGTAGCG  
GCTTCGGTAGTGGCCGCCGTGGTGCCACACACCGTTGAGGTTGGAGTGGGCACAGGCATGGTACCACCAGCCTCC  
CCGCTGGTACAGGGCACAGTTACCTGAGGGGAGAGAGAGAGTCCATGTCCTCTCACCAGAATAAAAGCCTCTACC  
TGCACCTCACAGTGCAAGGCTTTTGCCAGGCATCCCCTGGCCCCCTCCCATTCTTATTGAATACAAGCCCTGATCT  
TCCATCTCCTCAGCAAAAAAATAGGAGCCCTGGCCCCCAACTTTCTTCAGAGTAATAGCCTTAATTCCTTCCCT  
ATCTCCTTACCAAAGTACAAGTCACATCTTTCCCACTTTTCTGCAAACTAGGAGTCTACCGTTTATTCTTTAT  
CAAAGAAAAGTATCTACTTCTTTCTAGAATAAGAGTACTAGCTCTCACCCCTCTGCCCTTTACTTGAACAGGAGT  
CTTGATTCTTTTTTTGCCTCATCAGAGAAGGAATCTGGACTCCCCATCCCCCACCAGGATAAAAGTCCTGACCT  
TTGTTCTCTTGACGGAATAAAAGCTTGCTTATCCTT

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**FIGURE 419**

MSQEGVELEKSVRRRLREKFHGKVSSKKAGALMRKFGSDHTGVGRSIVYGVKQKDGQELSNDLDAQDPPEDMKQDR  
DIQAVATSLPLTEANLRMFQRAQDDLIPAVDRQFACSSCDHVWRRVPQRKEVSRCKCRKRYEPVPADKMWGL  
AEFHCPKCRHNFRGWAQMGSPSPCYGCGFPVYPTRILPPRRDRDPDRRSTHSCSAADCYNRREPHVPGTSCAH  
PKSRKQNHLPKVLHPSNPHISSGPTVATCLSQGGLLEDLDNLILEDLKEEEEEEEVEDEEGPRE

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**FIGURE 420A**

TGTGGCTGTGACCTGGCACAAGGGGGCTTCTTCATAAAGAACGGAGAGTATCTCTGCACCCTGGACTACCAGCGG  
**ATG**TACGGGACACGCTGCCATGGCTGTGGGGAGTTCTGTGGAGGGCGAAGTGGTGACTGCTCTGGGCAAGACCTAC  
CATCCCAATTGCTTTGCTTGTACTATCTGCAAGCGCCCGTTTTCCACCCGGAGACCGAGTCACATTCAATGGGAGA  
GACTGCCTTTGTCAACTCTGTGCACAGCCGATGTCGTCCAGTCCGAAAGAAACCACCTTCTCCAGCAATTGTGCC  
GGCTGCGGAAGAGATATCAAGAACGGGCAGGCGCTGCTGGCGCTGGATAAGCAGTGGCACTTGGGGTGCTTTAAA  
TGCAAGTCTTGCAGGAAGGTCTCACCAGGGGAGTACATCAGCAAGGATGGTGCTCCGTACTGTGAAAAGGACTAC  
CAGGGACTCTTTGGGGTGAAAATGTGAGGCGTGTACACAGTTTATCAGAGGAAAGTCTTGAGGCAGGTGACAAA  
CATTACCACCCAGCTGTGCACGATGCAGCAGATGCAACCAGATGTTTACAGAAGGAGAGGAAAATGTATCTTCAA  
GGCTCCACCGTTTTGGCATCCCCACTGTAAGCAATCTACGAAGACCGAGGAAAAGCTGCGGCCTACCAGGACATCC  
TCGGAAAGTATTTATTCTAGGCCAGGCTCCAGTATTCCTGGCTCACCAGGTCATACTATCTATGCAAAAGTAGAC  
AATGAGATCCTGGATTACAAGGATTTAGCAGCCATTCGGAAGGTCAAGGCAATTTATGACATTGAACGTCCAGAT  
CTTATTACCTATGAGCCTTTCTACACTTCGGGCTATGATGACAAACAGGAGAGACAGAGCCTTGGAGAGTCTCCG  
AGGACTTTGTCTCCTACTCCATCAGCAGAAGGGTACCAGGATGTTCCGGATCGGATGATCCATCGGTCCACGAGC  
CAGGGCTCCATCAACTCCCCGTGTGTACAGCCGCCACAGCTACACTCCAACCACGTCCCGCTCTCCCCAGCATTTT  
CACAGACCTGGCAATGAGCCGTCCAGCGGCCGGAACCTCCCTCTCCCTTACCGGCCAGACAGCCGCCCTCTAACT  
CCAACCTACGCTCAGGCCCTTAAACATTTCCATGTTCCAGATCAAGGAATCAACATTTACCGAAAGCCACCCATC  
TACAAACAGCATGCTGCCTTGGCAGCCCAGAGCAAGTCTCAGAAGATATCATCAAGTTTTCCAAGTTCCAGCA  
GCCCAGGCACCAGACCCAGCGAGACACCAGAGATTGAGACGGACCACTGGCCTGGTCCCCCTCATTGCTGTC  
ATAGGACCTGACATGAAACGCAGATCTAGTGGCAGAGAGGAAGATGATGAGGAACCTTCTGAGACGTCCGCAGCTT  
CAAGAAGAGCAATTAATGAAGCTTAACTCAGGCCTGGGACAGTTGATCTTGAAAGAAGAGATGGAGAAAGAGAGC  
CGGGAAGGTATCTCTGTTAGCCAGTCGCTACGATTCTCCCATCAACTCAGCTTCACATATTCCATCATCTAAA  
ACTGCATCTCTCCCTGGCTATGGAAGAAATGGGCTTACCGGCCTGTTTCTACCGACTTCGCTCAGTATAACAGC  
TATGGGGATGTGACGGGGGAGTGCGAGATTACCAGACACTCCCAGATGGCCACATGCCTGCAATGAGAATGGAC  
CGAGGAGTGTCTATGCCCAACATGTTGGAACCAAGATATTTCCATATGAAATGCTCATGGTGACCAACAGAGGG  
CGAAACAAAATCCTCAGAGAGGTGGACAGAACCAGGCTGGAGCGCCACTTAGCCCCGTAAGTGTTTCGGGAAATC  
TTTGGAATGTCCATACAGGAGTTTGACAGGTTACCTCTTTGGAGACGCAACGACATGAAGAAAAAGCAAACTC  
TTCT**TAAG**TCCCACTCGTGAATGGCAATTAGAGAAAGGACTGACAGTGGCGGTGCCCCATAGGATGTCATATTGAG  
GCCCAAACCTTGATTGGAGAATTTGCAAACCTACCGTCGCTCAGCAACACCAAAAAGAGAAAGTCTGGTTAAACAC  
CATGAGTCAAATGTCGGGCCAGCCAACAGTAACACTTGCCAAGAAGCATGGCGTAGAAATTTCTATGTTCCGAAA  
CACAGAGTAGTGTCCACATGTGACCTTTTACATTACCTTATGTATACAACAGGAGCTGCGTTGTTTTCTTCTTT  
TTCTTTTCTTTTATCTGTTGTCCAACAACAGTGTGACTGTCCGGATAAGAGCTGGCAAGTGCCCTTAGGATGCC  
GCATGGGAAAAATCGGTTATCATAATTTCAAAGTATAAATATATTTATTATGTAGCGCTGCGGCTAAGAAGGAAG  
AGTGAGGGGTCTGTCCATGGGGTGGCAGTGATTTACACCCGCTTTCTTGAATGGCTTCGTGTTACTCAGCCGT  
GCCCTGGCAGGAATGGAACCTCCATCAGGGAACAGGGCAGCTCTGTTTGAATGGGGTGAAAAACAGCAAAATTAAT  
TCTTAGCAAGCTCCTTGTTCTCTACTGTTACCGGGACCTGGCTGGCAAATGACTTAGCTATTAGTATATTTAAA  
AACTGTTCAAAGCAAAAGAGAAGGAACAGGAATGAAAGGAAACCTTCCCTTAACTCTTTCTGCTTCCCATAGCA  
GGTCTGGTTCCCTGCTCCCCGCCTAGGACAGGAGCTGTCTGGAGCTCCACCTTTGCAAAGAAAGGAAAAACACAAA  
TTGCCCCAGATTGGCCAGTGGCATGCCATTAGGTGATTTTGCCTAGGGGCCATATCATTTCATGGCCAAAAAAA  
ACCAAAAAGCAAAAAACAAAAACAAGTCCCATGTCTACTGACTCTAGTTCTTCCAGTCGTTATCCTCTGCTGTC  
TCTCTGGCATCCTATGAATCAGATCAAGCCCATGCTGTTGTTGGTTTTTAAGGTTTTCTTTCAATAATAGGCTAAG  
GAAAGACATGTTTTTCTCTTTTAAATCTCTGCAACTCCAAAGTAGACTCCTTCGAACGTATTTAATTTGGCCTTT  
TCAGCTTTCTTCTTGCCAGCTCTGTGCAATTCATGGGTGTGTGTGCACATGTTGGTTTTCACTCACCCAGAGTAA  
TTTTGTGAGCATGCATGTGCTTTTAAATTTCTGCTTGAATGTTTGTCTGTGTGTTGCAGCTTCTAAAGACATT  
GTCACCGAGTGTGTGTGACTCAAAGATCAAGAGTGAGGCTAAACTGCGACCCCAACATCACTTCCCTTCATGGAAA  
GGTGTGGCGCTGATGTAGCTCATGGAAGGATCAGACTGGGAACCACAGAGGAAGGATGAGGTGGGATGTGGAGG  
TCAGAGCATCTCACGAGAGTCCCTCAGGCTCTGCAACACTAGATTGCAATATGAGCCTAGGGTTTCCCCAACACG  
TGCGTGCATATGAAACCACATCATGATTCCCGACGTGAGTTAGATGAGGGAGAGTTTGTGTAAGTCCACACCCAG  
GAGGGTAAGCCACTTTATTATCATGCTTTGGGGCTGTGCTTAAGAATTTAAGCTCTGTTTTAAAGCCGAAGAAGA

**FIGURE 420B**

AAACATTGAAATTACCTTTACCTATGCTATGCCACTAAGAACAAAAGCTCTGAAGTTCTTCCTGCTGGCACCAAATATTAG  
GATTACAAGCTGTCTCTCTGACACCAGTGGTAAAAAAGCAAGTAGAATAGTTTCTGAGTCTGTGTTGCAGCCTCT  
GACACGTGGCTCACTGCTGTCAATTTGGGGGGTGAATGAACAGTCACTGTTCTATAGCATCCTCCTGTGCTCTTA  
CCTAAGGAATCTAAATTGTCTAGCCTTCCATTGCTATGCACTGAATGAGGACTACTCTCGTGTGTGTGTGTGTG  
TG  
CCATGAGCAGATGAGACCAGCTCTTGCTTGGTTGGAAGCCACACTGCAGTTTGAGTTTAGCCTTTGGTGTCTCA  
GTGGCCTCTTTGCTTATTCCATGCTTTTTCTATCCCATCCTCTCTCTGTGCCCTCCTGCAATGGCAGCCTTGGCAC  
AATGCCTGGGTGTCTCATCCTTGCTTTACTCTGGAAGTGTGGGGATGGAGAGGATGGTGCATTTCCAGTGCCT  
CCTTACCTGTCAATAACAATGGTGGCCACCTGGGTCCCAGCACTTGGCTGGTGGAGAGATTTTTTTCATTATGGA  
GCTAATAAAGGGTCCCTACGTTTTACATTGATTAATGAATTATCACCCAGACATGTGCAGATGAAATGTCAATAT  
AAGAAAAATCAAGGTATTTGGGAAACATGGGCATAATCAGGTAGTTTTGCTAAAAATTCCTCTTCCTTGGTCTACA  
TAAAGAAGACATGGGTCTGTATAGAATGGGGACATTAGACTGAAAACCTGGGACAACCCCTTCCCTATTTTATA  
GAGACTAGGAGTTAAGGGGCTGCCTAAGATTGCAGTGATAAAGAACTGAACCTAAATCAGCTCCCACCTAATGA  
AACCCTGCTTTCCCTTGTATCTTTTAAACTCAGTTCGCATCCAACCTTGAGAAAGAAAAAAGCTTCTTTCCATATC  
AAGTACCATATGAGTTTCAATTTAAACTGCACCTTGCAGAAATGCATTGCCAGAAAGCACCAGTAGCCTCCTATCTG  
CAAGCAGAGTAGTGCTCTGCTCTGGGGAGGGGTCAATTGGAACCATAATGCAGAGTGGGGCCCCCTACTCCATTT  
CCAGCAAAAGGCTCCAGCTGGAGGGATGGGTTGTGGGGCAACCTGGTTTCTGCTAACTGCCAGATTGAATGTGTG  
GGCTAGAATGCCTGCGCATTTAGTTAAACTGGGCTCAGCATGCTTGTCTCAAAATGTCCATCCTGGTCACAGCA  
CACAAGATGGCTATTGGTCTGCTTTTACCCTACCTTGTACTATACATGAAAATTCCAGTTATTAACACACTCAAA  
CTGGTGGAGCTTGTTCACCCTAGGAAGGGGATTGTATATATGGCAGGCTTCCCTGGTGCCGATGTAAAGGGCTAC  
ATTTGGGAACATTTGACTTCCCTTGGGACTCTTAAGTGCATACTGATGGCATGAAGTAAAGGGGCTCAATGATG  
ATAGGAAAATCAGTTCTTTTAAATTTCTTCAAGAAAATCCAGGCTATCACATAGTCTTCTGTGTGACTTATTA  
GGAGATAGGAAGAGCATTGGGAAACTTGCACAGCTAGCTATGCATCTACATTTTGGTTTGGGGTAGTTATGAAA  
GTGTTCTTAATATGACGTGTTCAATAACTTCACATAAACTTCCTGTTCTCCAAAACCTCAAAGAGATAGAGTTAAT  
GAGTTGTTGTTTTTTTTTAAATGGGGGTAGTTTTCTATCTGTTCATGGGCTCTAGCATCTACTCCGCTACCCAATT  
CTGTCTCTCCAGCTGAGTTTCCCTCTTCTGAGGCAGAGGCTGGAGCAGTCTTTTTTCAGTTCTCATCTCTCCA  
TCCCAATCCAGTATATCAATCAACCTCTAACTCGGAGACGTCTAGCTGGCAATGTTTCTAAAACCTTCACTGGATT  
TCTTTAGACATTGAAGCAAACATTTTTTTCTAAGAATTGCTTCTCAGATGATGATATCAAATGTATATGCTTTTG  
CAAGTTTGAAAAGTTCAAATTAACCACTTTTGACTAGGTAAGTCTTTCTAAAACCATTTAAAGCTAACTGGGTC  
TTAGCATCCTCCTGTGTATGGAAGAGACAGGTGACCGCTCCAGGTTGGGTGCTCAGAGAACCCTTTTCTGACTC  
TCATGGAAGATGGTGGAAAGGAAAATAGACTGTCTCATCAACCCTCCTGTGTCTCTGAAGCAATCTCAGTTTTTA  
TTAACCACCTCTTCTGTGTTTCTGGTAGCTATTTAACCTGTATTTAATCTGTACTTCTATGCCAGCCTCAATTT  
TATTTGATTTTTTAAATTTATTCTCTTCTAACCAATGAAGTGTGTTGTGAGTATGCCCCAAAGCTTGCTCTTTGTG  
CTCCCTTTTGAATAACTTTCTATCCAGAAAAGAGATTATTTGGGACTTGAGATTTGCAGTGATACCAACTTATA  
GCAATGATGTACTTTAAGGGAACCTACCAACTATGTTGTGATAGAAGAAAGAGAAACCTTCACTTTGGCATT  
TTTTAATCACTGTTTATTTTTCTGTTTGC GGCCAGGAAGCAGTGGGAGGTGGTGGCAGATATGCTTTGCATATGG  
ATTGTTATGTTTTTATTTGGGCAAGTTAATCATGAAAACCTCAAAAAGAAGGGGGGAAATGGTCAGTTAAGCC  
AAAAGAACTTTCTAAACAATGTATAGGTACACAGCAAAATTAACAAATCCAACAATTTCTGAAGCTTAGTGTA  
ATTGAGTGGTGGTTGTTATTCAATAAAATTTATCCCAAAGTGTCTCTCCTAAGAGTGCAGTTCCCATGAGTCAC  
TTCCTGAACCCATTGACCAAAGGTGGACAGAGACAATCCTGTAGACCTTGACATTGAGAAAGATGTGAGCTGCTT  
ACTGATCATATATGCATACGTTTCTTTACAGCAGAGGAAACCATTGTCCACAAAACCTGATGTTCTTTTGGGGTTT  
TATGTACAGACTTGTCCAATCATGTGTGTGGTTCCTGCGAGTTGCTGATGACTCCGCATTGAAGCTCTCTGAGTT  
CTTTGATTTTTAAGTTGGGTTTATGGAATTTTTTCAAATGTTGGAAGGCGTGTGGTTCTTCTGCCCCCTCCCC  
TTTTGGAAATATGAAAGCAAATGTTTAGAAGAATTCTTTTGAAGAGCTGTGTGCTGTTCCCTGTGAAACTGAGC  
AGGTGTGTGTTGGCGCGCTAAGTGCCACATGCTTGTGTGTAGAGGAGGAGGTGGCCCTGCCGGCTCCGCGCTGCT  
GTGCCGTGTGATCCCTACCTGCTCCCCGCTCCTGTTGCCAGCAGCACTCACTGCACTCCTTTGTATATACTCTGC  
ATCACTGTCATACTCACAACCTCGTGAATAAAGTTGTGTGCTTTATTCGTC

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**FIGURE 421**

MYGTRCHGCGEFVEGEVVITALGKTYHPNCFACITICKRPFPPGDRVTFNGRDCLCQLCAQPMSSSPKETTFSSNCA  
GCGRDIKNGQALLALDKQWHLGCFKCKSCGKVLITGEYISKDGAPYCEKDYQGLFGVKCEACHQFITGKVLEAGDK  
HYHPSCARCSRCNQMFTEGEEMYLQGSTVWHPDCKQSTKTEEKLRPTRTSSESIYSRPGSSIPGSPGHTIYAKVD  
NEILDYKDLAAIPKVKAIDIERPDLITYEPFYTSGYDDKQERQSLGESPRTLSPTPSAEGYQDVRDRMIHRSTS  
QGSINSPVYSRHSYTPTTSRSPQHFRPGNEPSSGRNSPLPYRPDSLPLTPTYAQAPKHFHVPDQGINIYRKPP I  
YKQHRALAAQSKSSEDI IKFSKFPAAQAPDPSETPKIETDHWPGPPSFAVVGPDMKRRSSGREEDDEELLRRRQL  
QEEQLMKLNSGLGQLILKEEMEKESRERSLLASRYDSPINSASHIPSSKTASLPGYGRNGLHRPVSTDFAQYNS  
YGDVSGGVVDYQTLDPDGHMPAMRMDRGVSMNMLEPKIFPYEMLMVTNRGRNKILREVDTRLERHLAPEVFREI  
FGMSIQEFDRPLPLWRRNDMKKKAKLF



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**FIGURE 422**

CCCGGACGTGCGGCTCCCCTCGGCCTCCTCGCCATGGACGCGGACGACTCCCGGGCCCCCAAGGGCTCCTTGCGG  
AAGTTCCTGGAGCACCTCTCCGGGGCCGGCAAGGCCATCGGCGTGCTGACCAGCGGCGGGGATGCTCAAGGTATG  
AACGCTGCCGTCCGTGCCGTGGTGCGCATGGGTATCTACGTGGGGGCCAAGGTGTACTTCATCTACGAGGGCTAC  
CAGGGCATGGTGGACGGAGGCTCAAACATCGCAGAGGGCCGACTGGGAGAGTGTCTCCAGCATCCTGCAAGTGGGC  
GGGACGATCATTGGCAGTGCGCGGTGCCAGGCCTTCCGCACGCGGGAAGGCCGCCTGAAGGCTGCTTGCAACCTG  
CTGCAGCGCGGCATCACCAACCTGTGTGTGATCGGCGGGGACGGGAGCCTCACCGGGGCCAACCTCTTCCGGAAG  
GAGTGGAGTGGGCTGCTGGAGGAGCTGGCCAGGAACGGCCAGATCGATAAGGAGGCCGTGCAGAAGTACGCCTAC  
CTCAACGTGGTGGGCATGGTGGGCTCCATCGACAATGATTTCTGCGGCACCGACATGACCATCGGCACGGACTCC  
GCCCTGCACAGGATCATCGAGGTGCTCGACGCCATCATGACCACGGCCCAGAGCCACCAGAGGACCTTTCGTTCTG  
GAGGTGATGGGACGACACTGTGGGTACCTGGCCCTGGTGAGTGCCTTGGCCTGCGGTGCGGACTGGGTGTTCTT  
CCAGAATCTCCACCAGAGGAAGGCTGGGAGGAGCAGATGTGTGTCAAACCTCTCGGAGAACCCTGCCCGGAAAAA  
AGGCTGAATATTATTATTGTGGCTGAAGGAGCAATTGATACCCAAAATAAACCCATCACCTCTGAGAAAATCAAA  
GAGCTTGTCGTACGCAGCTGGGCTATGACACACGTGTGACCATCCTCGGGCACGTGCAGAGAGGAGGGACCCCT  
TCGGCATTTCGACAGGATCTTGGCCAGCCGCATGGGAGTGGAGGCAGTCATCGCCTTGCTAGAGGCCACCCCGGAC  
ACCCAGCTTGCGTCGTGTCACTGAACGGGAACACGCCGTGCGCTGCCGCTGATGGAGTGCCTGCAGATGACT  
CAGGATGTGCAGAAGGCGATGGACGAGAGGAGATTTCAGATGCGGTTGACTCCGAGGGAGGAGCTTTGCGGGC  
AACCTGAACACCTACAAGCGACTTGCCATCAAGCTGCCGGATGATCAGATCCCAAAGACCAATTGCAACGTAGCT  
GTCATCAACGTGGGGGCACCCGCGGCTGGGATGAACGCGGCCGTACGCTCAGCTGTGCGCGTGGGCATTGCCGAC  
GGCCACAGGATGCTCGCCATCTATGATGGCTTTGACGGCTTCGCCAAGGGCCAGATCAAAGAAATCGGCTGGACA  
GATGTGCGGGGCTGGACCGGCCAAGGAGGCTCCATTCTTGGGACAAAACGCGTTCTCCCGGGGAAGTACTTGGA  
GAGATCGCCACACAGATGCGCACGCACAGCATCAACGCGCTGCTGATCATCGGTGGATTTCAGGGCCTACCTGGGA  
CTCCTGGAGCTGTCAGCCGCCCGGAGAAGCACGAGGAGTTCTGTGTCCCCATGGTCAITGGTTCCCGCTACTGTG  
TCCAACAATGTGCCGGGTTCCGATTTAGCATCGGGGCAGACACCGCCCTGAACACTATCACCGACACCTGCGAC  
CGCATCAAGCAGTCCGCCAGCGGAACCAAGCGGCGCGTGTTCATCATCGAGACCATGGGCGGCTACTGTGGCTAC  
CTGGCCAACATGGGGGGGCTCGCGGCCGAGCTGATGCCGCATACATTTTCGAAGAGCCCTTCGACATCAGGGAT  
CTGCAGTCCAACGTGGAGCACCTGACGGAGAAAATGAAGACCACCATCCAGAGAGGCCTTGTGCTCAGAAATGAG  
AGCTGCAGTGA AAACTACACCACCGACTTCATTTACCAGCTGTATTGAGAAGAGGGCAAAGGCGTGTGTTGACTGC  
AGGAAGAACGTGCTGGGTCACATGCAGCAGGGTGGGGCACCCCTCTCCATTGATAGAACTTTGGAACCAAAATC  
TCTGCCAGAGCTATGGAGTGGATCACTGCAAACTCAAGGAGGCCCCGGGGCAGAGGAAAAAATTTACCACCGAT  
GATTCCATTTGTGTGCTGGGAATAAGCAAAAGAAACGTTATTTTTCAACCTGTGGCAGAGCTGAAGAAGCAAACG  
GATTTTGAGCACAGGATTCCCAAAGAACAGTGGTGGCTCAAGCTACGGCCCCCTCATGAAAATCCTGGCCAAGTAC  
AAGGCCAGCTATGACGTGTCGGACTCAGGCCAGCTGGAACATGTGCAGCCCTGGAGTGTCTGAACCCAGTCCCGCC  
TGCATGTGCCTGCAGCCACCGTGGACTGTCTGTTTTGTAACACTTAAGTTATTTTATCAGCACTTTATGCACGT  
ATTATTGACATTAATACCTAATCGGCGAGTGCCCATCTGCCCCACCAGCTCCAGTGCGTGCTGTCTGTGGAGTGT  
GTCTCATGCTTTCAGATGTGCATATGAGCAGAATTAATTAA

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**FIGURE 423**

MDADDSRAPKGSRLRKFLEHLSGAGKAIGVLTSGGDAQGMNAAVRAVVRMGIYVGAKVYFIYEGYQGMVDGGSNIA  
EADWESVSSILQVGGTIIGSARCQAFRTREGRLKAACNLLQRGITNLCVIGGDGSLTGANLFRKEWSGLLEELAR  
NGQIDKEAVQKYAYLNVVGMVGSIDNDFCGTDMTIGTDSALHRIIEVVDAIMTTAQSHQRTFVLEVMGRHCGYLA  
LVSALACGADWVFLPESPPEEGWEEQMCVKLSENRAKKRLNIIIVAEGAIDTQNKPIITSEKIKELVVTQLGYDT  
RVTILGHVQRGGTPSAFDRILASRMGVEAVIALLEATPDTPACVVSLNGNHAVRLPLMECVQMTQDVQKAMDERR  
FQDAVRLRGRSFAGNLNTYKRLAIKLPDDQIPKTN CNVAVINVGAPAAGMNAAVRSAVRVGIADGHRMLAIYDGF  
DGFAKGQIKEIGWTDVGGWTGQGG SILGTRVLP GKYLEE IATQMRTHSINALLIIGGFEAYLG LLELSAAREKH  
EEFCVPMVMVPATVSNNVPGSDFSIGADTALNTITDTCRIKQSASGTRRVFIIETMGGYCGYLANMGGLAAGA  
DAAYIFEFPFDIRDLQSNVEHLTEKMKTTIQRGLVLRNESCSENYTTDFIYQLYSEEGKGVFDCRKNVLGHMQQG  
GAPSPFDRNFGTKISARAMEWITAKLKEARGRGKKFTTDDSI CVLGISKRN VIFQPV AELKKQTDFEHRIPKEQW  
WLKLRPLMKILAKYKASYDVSDSGQLEHVQPWSV

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**FIGURE 424A**

CGTCCGCGTGGGGGGGGTGTGTGCCCGCCTTGCGCATGCGTGTTCCTGGGCATGGCCGGCTCCGTTCCATCCTT  
CTGCACAGGGTATCGCCTCTCTCCGTTTGGTACATCCCCTCCTCCCCACGCCCAGGACTGGGGTGGTAGACGCGC  
CTCCGCTCATCGCCCTCCCCATCGGTTTCCGCGCGAAAAGCCGGGGCGCTGCGCTGCCGCCGCCGCGTCTGCT  
GAAGCCTCCGAGATGCGCGCGCTACCGCCCCAGCCCGGTGCCACACTGGCCGTCCCGGCCATCTCGCTGCCC  
GACGATGTCCGCAGGCGGCTCAAAGATTTGGAAAGAGACAGCTTAACAGAAAAGGAATGTGTGAAGGAGAAATTG  
AATCTCTTGACGAATTTCTGCAAACAGAAATAAAGAATCAGTTATGTGACTTGGAACCAAATTACGTAAAGAA  
GAATTATCCGAGGAGGGCTACCTGGCTAAAGTCAAATCCCTTTTAAATAAAGATTTGTCCTTGAGAACGGTGCT  
CATGCTTACAACCGGGAAGTGAATGGACGTCTAGAAAACGGGAACCAAGCAAGAAGTGAAGCCCGTAGAGTGGGA  
ATGGCAGATGCCAACAGCCCCCACAACCCCTTTCCAAACCTCGCACGCCAGGAGGAGCAAGTCCGATGGAGAG  
GCTAAGCCTGAACCTTACCTAGCCCCAGGATTAC AAGGAAAAGCACCAGGCAAACCACCATCACATCTCATTTT  
GCAAAGGGCCCTGCCAAACGGAACCTCAGGAAGAGTCTGAAAGAGCCAAATCGGATGAGTCCATCAAGGAAGAA  
GACAAAGACCAGGATGAGAAGAGACGTAGAGTTACATCCAGAGAACGAGTTGCTAGACCGCTTCTGCAGAAGAA  
CCTGAAAGAGCAAAATCAGGAACGCGCACTGAAAAGGAAGAAGAAAGAGATGAAAAAGAAGAAAAGAGACTCCGA  
AGTCAAACCAAAGAACCAACACCCCAAACAGAACTGAAGGAGGAGCCGGACAGAGAAGCCAGGGCAGGCGTGCGAG  
GCTGACGAGGACGAAGATGGAGACGAGAAAGATGAGAAGAAGCACAGAAGTCAACCCAAAGATCTAGCTGCCAAA  
CGGAGGCCCGAAGAAAAAGAACCTGAAAAGTAAATCCACAGATTTCTGATGAAAAAGACGAGGATGAAAAGGAG  
GAGAAGAGACGCAAAACGACCCCAAAGAACCAACGGAGAAAAAAATGGCTCGCGCCAAAACAGTCATGAACTCC  
AAGACCCACCTCCCAAGTGCATTCAGTGGGGCAGTACCTGGACGACCTGACCTCAAATATGGGCAGCACCCA  
CCAGACGCGGTGGATGAGCCACAGATGCTGACAAATGAGAAGCTGTCCATCTTTGATGCCAACGAGTCTGGCTTT  
GAGAGTTATGAGGCGCTTCCCCAGCACAACTGACCTGCTTCACTGTGTACTGTAAGCACGGTCACTGTGTCCC  
ATCGACACCGGCTCATCGAGAAGAATATCGAACTCTTCTTTTCTGGTTTACGAAAACCAATCTATGATGATGAC  
CCGTCTCTTGAAGGTGGTGTTAATGGCAAAATCTTGGCCCCATAAATGAATGGTGGATCACTGGCTTTGATGGA  
GGTGAAAAGGCCCTCATCGGCTTCAGCACCTCATTGCCGAATACATTCTGATGGATCCAGTCCCGAGTATGCG  
CCCATATTTGGGCTGATGCAGGAGAAGATCTACATCAGCAAGATTGTGGTGGAGTTCCTGCAGAGCAATTCCGAC  
TCGACCTATGAGGACCTGATCAACAAGATCGAGACCACGGTTCTCCTTCTGGCCTCAACTTGAACCGCTTACA  
GAGGACTCCCTCCTGCGACACGCGCAGTTTGTGGTGGAGCAGGTGGAGAGTTATGACGAGGCCGGGGACAGTGAT  
GAGCAGCCCATCTTCTGACGCCCTGCATGCGGGACCTGATCAAGCTGGCTGGGGTCACGCTGGGACAGAGGCGA  
GCCCAGGCGAGGCGGCAGACCATCAGGCATTCTACAGGGAGAAGGACAGGGGACCCACGAAAGCCACCACCACC  
AAGCTGGTCTACCAGATCTTCGATACTTTCTTCGAGAGCAAATTGAAAAGGATGACAGAGAAGACAAGGAGAAC  
GCCTTTAAGCGCCGGCGATGTGGCGTCTGTGAGGTGTGTACGAGCCTGAGTGTGGGAAATGTAAAGCCTGCAAG  
GACATGGTTAAATTTGGTGGCAGTGGACGGAGCAAGCAGGCTTGCCAAGAGCGGAGGTGTCCCAATATGGCCATG  
AAGGAGGCAGATGACGATGAGGAAGTCGATGATAACATCCAGAGATGCCGTACCCAAAAAAATGCACCAGGGG  
AAGAAGAAGAAACAGAACAAGAATCGCATCTCTTGGGTCGGAGAAGCCGTCAAGACTGATGGGAAGAAGAGTTAC  
TATAAGAAGGTGTGATTGATGCGGAAACCTGGAAGTGGGGGACTGTGTCTCTGTTATTCCAGATGATTCTCA  
AAACCGCTGTATCTAGCAAGGGTCACGGCGCTGTGGGAGGACAGCAGCAACGGGCAGATGTTTACGCCCCACTGG  
TTCTGCGCTGGGACAGACACAGTCTCGGGGCCACGTGCGACCCTCTGGAGCTGTTCTTGGTGGATGAATGTGAG  
GACATGCAGCTTTTATATATCCACAGCAAAGTGAAAGTCATCTACAAAGCCCCCTCCGAAAACCTGGGCCATGGAG  
GGAGGCATGGATCCCGAGTCCCTGCTGGAGGGGGACGACGGGAAGACCTACTTCTACCAGCTGTGGTATGATCAA  
GACTACGCGAGATTCGAGTCCCTCCAAAAACCCAGCCAACAGAGGACAACAAGTTCAAATTTCTGTGTGAGCTGT  
GCCCCGTCTGGCTGAGATGAGGCAAAAAGAAATCCCCAGGGTCTTGGAGCAGCTCGAGGACCTGGATAGCCGGGTC  
CTCTACTACTCAGCCACCAAGAACGGCATCCTGTACCGAGTTGGTGATGGTGTGTACCTGCCCCCTGAGGCCTTC  
ACGTTCAACATCAAGCTGTCCAGTCCCGTGAAACGCCACGGAAGGAGCCCGTGGATGAGGACCTGTACCCAGAG  
CACTACCGGAAATACTCCGACTACATCAAAGGCAGCAACCTGGATGCCCCTGAGCCCTACCGAATTGGCCGGATC  
AAAGAGATCTTCTGTCCCAAGAAGAGCAACGGCAGGCCCAATGAGACTGACATCAAATCCGGGTCAACAAGTTC  
TACAGGCCTGAGAACACCCACAAGTCCACTCCAGCGAGCTACCACGCAGACATCAACCTGCTCTACTGGAGCGAC  
GAGGAGGCCGTGGTGGACTTCAAGGCTGTGCAGGGCCGCTGCACCGTGGAGTATGGGGAGGACCTGCCCGAGTGC  
GTCCAGGTGTACTCCATGGGCGGCCCCAACCGCTTCTACTTCTCGAGGCCTATAATGCAAAGAGCAAAAGCTTT  
GAAGATCCTCCCAACCATGCCCGTAGCCCTGGAACAAAGGGAAGGGCAAGGGAAAAGGGAAGGGCAAGCCCAAG

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**FIGURE 424B**

TCCCAAGCCTGTGAGCCGAGCGAGCCAGAGATAGAGATCAAGCTGCCCCAAGCTGCGGACCCTGGATGTGTTTTCT  
GGCTGCGGGGGGTTGTGCGGAGGGATTCCACCAAGCAGGCATCTCTGACACGCTGTGGGCCATCGAGATGTGGGAC  
CCTGCGGGCCAGGCGTTCCGGCTGAACAACCCCGGCTCCACAGTGTTACAGAGGACTGCAACATCCTGCTGAAG  
CTGGTCATGGCTGGGGAGACCACCAACTCCCGCGGCCAGCGGCTGCCCCAGAAGGGAGACGTGGAGATGCTGTGC  
GGCGGGCCGCCCTGCCAGGGCTTCAGCGGCATGAACCGCTTCAATTCGCGCACCTACTCCAAGTTCAAAAACCTCT  
CTGGTGGTTTCCTTCCTCAGCTACTGCGACTACTACCGGCCCCGGTTCTTCCTCCTGGAGAATGTCAGGAACCTT  
GTCTCCTTCAAGCGCTCCATGGTCCTGAAGCTCACCTCCGCTGCCTGGTCCGCATGGGCTATCAGTGCACCTTC  
GGCGTGCTGCAGGCCGGTCAGTACGGCGTGGCCCAGACTAGGAGGCGGGCCATCATCCTGGCCGCGGGCCCTGGA  
GAGAAGCTCCCTCTGTTCCCGGAGCCACTGCACGTGTTTGCTCCCCGGGCCCTGCCAGCTGAGCGTGGTGGTGGAT  
GACAAGAAGTTTGTGAGCAACATAACCAGGTTGAGCTCGGGTCCCTTTCCGGACCATCACGGTTCGAGACACGATG  
TCCGACCTGCCGGAGGTGCGGAATGGAGCCTCGGCACCTGGAGATCTCCTACAACGGGGAGCCTCAGTCCCTGGTTC  
CAGAGGCAGCTCCGGGGCGCACAGTACCAGCCCATCCTCAGGGACCACATCTGTAAGGACATGAGTGCATTGGTG  
GCTGCCCCGATGCGGCACATCCCTTGGCCCCAGGGTCAGACTGGCGCGATCTGCCCAACATCGAGGTGCGGCTC  
TCAGACGGCACCATGGCCAGGAAGCTGCGGTATACCCACCATGACAGGAAGAACGGCCGCAGCAGCTCTGGGGCC  
CTCCGTGGGGTCTGCTCCTGCGTGGAAGCCGGCAAAGCCTGCGACCCCGCAGCCAGGCAGTTCAACACCCTCATC  
CCCTGGTGCCTGCCCCACACCGGAACCGGCACAACCACTGGGCTGGCCTCTATGGAAGGCTCGAGTGGGACGGC  
TTCTTCAGCACAACCGTCACCAACCCCGAGCCCATGGGCAAGCAGGGCCGCGTGCTCCACCCAGAGCAGCACCGT  
GTGGTGAGCGTGCGGGAGTGTGCCCGCTCCAGGGCTTCCCTGACACCTACCGGCTCTTCGGCAACATCCTGGAC  
AAGCACCGGCAGGTGGGCAATGCCGTGCCACCGCCCTGGCCAAAGCCATTGGCTTGGAGATCAAGCTTTGTATG  
TTGGCCAAAGCCCGAGAGAGTGCCTCAGCTAAAATAAAGGAGGAGGAAGCTGCTAAGGACTAGTCTGCCCTCCC  
GTCACCCCTGTTTCTGGCACCAGGAATCCCCAACATGCACTGATGTTGTGTTTTTAACATGTCAATCTGTCCGTT  
CACATGTGTGGTACATGGTGTGTGTGGCCTTGGCTGACATGAAGCTGTTGTGTGAGGTTTCGCTTATCAACTAATG  
ATTTAGTGATCAAATTGTGCAGTACTTTGTGCATTCTGGATTTTAAAGTTTTTTATTATGCATTATATCAAATC  
TACCACTGTATGAGTGGAAATTAAGACTTTATGTAGTTTTTATATGTTGTAATATTTCTTCAAATAAATCTCTCC  
TATAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 425**

MPARTAPARVPTLAVPAISLPDDVRRRLKDLERDSLTEKECVKEKLNLLHEFLQTEIKNQLCDLETKLRKEELSE  
EGYLAKVKSLLNKDLSLENGAHAYNREVNRLNENQARSEARRVGMADANSPPKPLSKPRTPRRSKSDGEAKPE  
PSPSPRITRKSTRQTTITSHFAKGPAPKRPQEESERAKSDESIKEEDKDQDEKRRRVTSRERVARPLPAEPEPERA  
KSGTRTEKEEERDEKEEKRLRSQTKEPTPKQKLKEEPPDREARAGVQADEDEDGDEKDEKKHRSQPKDLAAKRRPE  
EKEPEKVNQISDEKDEDEKEEKRRKTTPKEPTEKKMARAKTVMNSKTHPPKCIQCGQYLDLDPDLKYGQHPPDAV  
DEPQMLTNEKLSIFDANESGFESYEALPQHKLTCFSVYCKHGHLCPIDTGLIEKNIELFFSGSAPKIYDDDPDSLE  
GGVNGKNLGPINEWITGFDGGEKALIGFSTSFAYEYILMDPSPEYAPIFGLMQEKIYISKIVVEFLQSNSDSTYE  
DLINKIETTVPSSGLNLRFTEDSLLRHAQFVVEQVESYDEAGDSDEQPIFLTPCMRLIKLAGVILGQRRARAR  
RQTIRHSTREKDRGPTKATTTKLVIYQIFDTFFAEQIEKDDREDKENAFKRRRCGVCEVCQQPECGKCKACKDMVK  
FGGSGRSKQACQERRCPNMAMKEADDDEEVDDNIPEMPSPKKMHQGGKKKKQKNRISWVGEAVKTDGKKSYYKKV  
CIDAETLEVGDVSVIPDDSSKPLYLARVTALWEDSSNGQMFHAHWFCAGTDTVLGATSDPLELFLVDECEDMQL  
SYIHSKVVIYKAPSENWAMEGGMDPESLLEGDDGKTYFYQLWYDQDYARFESPPKTQPTEDNKFKFCVSCARLA  
EMRQKEIPRVLEQLEDLSRVLYYSATKNGILYRVGDGVYLPPEAFTFNILSSPVKRPRKEPVDEDLYPEHYRK  
YSDYIKGSNLDAPEPYRIGRIKEIFCPKKSNGRPNETDIKIRVNKFYRPENTHKSTPASYHADINLLYWSDEEAV  
VDFKAVQGRCTVEYGEDLPECVQVYSMGGPNRFYFLEAYNAKSKSFEDPPNHARSPGNKGKGKGGKPKSQAC  
EPSEPEIEIKLPKLRTLDVFSGCGGLSEGFHQAGISDTLWAIEMWDPAQAFLNNPGSTVFTEDCNILLKLVA  
GETTNSRGQRLPQKGDVEMLCGGPPCQGFSGMNRFNSTYSKFKNSLVVSFLSYCDYRPRFFLENVRNFVSFK  
RSMVLKLTLRCLVRMGYQCTFGVLQAGQYGAQTRRRRAIILAAAPGEKLPFPPEPLHVFAPRACQLSVVDDKKF  
VSNITRLSSGPFRTITVRDTMSDLPEVRNGASALEISYNGEPQSWFQRLRGAQYQFILRDHICKDMSALVAARM  
RHIPLAPGSDWRDLPNIEVRLSDGTMARKLRYTHDRKNRSGSSGALRGVCSCVEAGKACDPAARQFNTLIPWCL  
PHTGNRHHNWAGLYGRLEWDGFFSTTVTNPEPMGKQGRVLHPEQHRVSVRECARSQGFDPDYRLFGNILDKHRQ  
VGNAVPPPLAKAIGLEIKLCMLAKARESASAKIKEEEAAKD

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**FIGURE 426**

CGGACGCGTG GGGCCCGGGGGGCTGAGGCGCCCGCGCCTGCCGCGGGGGCCGCTCGCGTCCTCC**ATG**GAGGCCG  
GAGAGGAACCGCTGCTGCTGGCCGAAC TCAAGCCCGGGCGCCCCACCAGTTTGATTGGAAGTCCAGCTGTGAAA  
CCTGGAGCGTCGCCTTCTCCCCAGATGGCTCCTGGTTTGCTTGGTCTCAAGGACACTGCATCGTCAAAC TATGATCC  
CCTGGCCGTTGGAGGAGCAGTTTCATCCCTAAAGGGTTTGAAGCCAAAAGCCGAAGTAGCAAAAATGAGACGAAAG  
GGCGGGGCAGCCCCAAAAGAGAAGACGCTGGACTGTGGTCAGATTGTCTGGGGGCTGGCCTTCAGCCCCTGGCCCTT  
CCCCACCCAGCAGGAAGCTCTGGGCACGCCACCACCCCCAAGTGCCCGATGTCTCTTGCTGGTTCTTGCTACGG  
GACTCAACGATGGGCAGATCAAGATCTGGGAGGTGCAGACAGGGCTCCTGCTTTTGAATCTTTCCGGCCACCAAG  
ATGTCGTGAGAGATCTGAGCTTCACACCCAGTGGCAGTTTGAATTTGGTCTCCGCGTCACGGGATAAGACTCTTC  
GCATCTGGGACCTGAATAAACACGGTAAACAGATTCAAGTGTTATCGGGCCACCTGCAGTGGGTTTACTGCTGTT  
CCATCTCCCCAGACTGCAGCATGCTGTGCTCTGCAGCTGGAGAGAAGTCGGTCTTTCTATGGAGCATGAGGTCTT  
ACACGTTAATTCGGAAGCTAGAGGGCCATCAAAGCAGTGTTGTCTCTTGACTTCTCCCCGACTCTGCCCTGC  
TTGTACGGCTTCTTACGATACCAATGTGATTATGTGGACCCCTACACCGGCGAAAGGCTGAGGTCACTCCACC  
ACACCCAGGTTGACCCCGCCATGGATGACAGTGACGTCCACATTAGCTCACTGAGATCTGTGTGCTTCTCTCCAG  
AAGGCTTGACCTTGCCACGGTGGCAGATGACAGACTCCTCAGGATCTGGGCCCTGGAAGTGAAGTCCCATTTG  
CATTTGCTCCTATGACCAATGGGCTTTGCTGCACATTTTTTCCACATGGTGGAGTCATTGCCACAGGGACAAGAG  
ATGGCCACGTCCAGTTCTGGACAGCTCCTAGGGTCTGTCTCACTGAAGCACTTATGCCGGAAGGCCCTTCGAA  
GTTTCCTAACAACCTTACCAAGTCTTAGCACTGCCAATCCCCAAGAAAATGAAAGAGTTCCTCACATACAGGACTT  
TT**TAA**GCAACACCACATCTTGCTTCTTTGTAGCAGGGTAAATCGTCCTGTCAAAGGGAGTTGCTGGAATAATG  
GGCCAAACATCTGGTCTTGCAATGAAATAGCATTTCTTTGGGATTGTGAATAGAATGTAGCAAAACCAGATTCCA  
GTGTACTAGTCATGGATCTTTCTCTCCCTGGCATGTGAAAGTCAGTCTTAGAGGAAGAGATTCCACTTGCACGGC  
AACAGAGCCTTACGTTAAATTTTCAGTCCAGTTATGAACAGCAAGTGTTGAACTCTTTCTGCTTGTTTTGATTCA  
AAGTGCAGTTACTGATGTTGTTTTGATTATGCAACTAAGTAGGCCTCCAGAGCCTCTCTAGTGGCAGAGCAGCTC  
ACACTCCCTCCGCTGGGAACGATGGCTTCTGCCTAGTACCTATCCTTGTTTCTGATGCAGTGGTAGCATTGGT  
TCAAGTTCTCTCTGCTGTGGTCAGAGTTGCTTCGATGTTGGCCAAGTGCTTTTCTTCTTGCGCTCCCTTCTGAC  
CTGCAGGACAGTTTTCTGGAGCCATTTGGTATGAGGTATTAATTTAGCTTAACTAAATTACAGGGGACTCAGAG  
GCCGTGCTCCTGACCGATCCAGACACTATTACTGGCTTTTTTTTTTTTTTAAACAATGGTGTGCATGTGCAGGAAA  
TGACAAATTTGTATGTCAGATTATACAAGGATGATTCTTAAACCGCATGACTATTAGATGGCTACTGAGTTAT  
CAGTGGCCATTTATTAGCATCATATTTATTTGATTTTCTCAACAGATGTTAAGGTACAAGTGTGTTTTCTCGA  
TTATCTAAAAACCATAGTACTTAAATTGAACAGTTGCAAAGATGTCTTAATTGTGTAAAGAATTGGTGTAGTCAT  
GACTTTAGCTGATACTCTTATGTACGAGATCTGTCTCTGCTGTTTAACTTCATTGGATTAATCAGCTGGTTTTCAA  
CTCTACTGCGAAACAAAAATAGCTCCTTAAAGTACTGTTCTCCTTCAGTGGCATGTAGTTATCTAATCAAGACA  
CCTCATTCAAACAAAACCTGCCTTAGGAAAATTTAATATATTTTAAATTATTTTAAAGAAATACAACATCTTAT  
TCTTTAGCTTTCTTAATCGGTGCTTTATGGAGGCCAGTGTAACGTTACATGACTCGTTGAGAAAGTTGAGGAATT  
TCCTCTACCACCTTTGTTGCTTGAAGAAAAACATGTCTTTTCAAATGAGAGGCTTTCATTGAAGAAAAGAAAAA  
AACAACAGTTAAA

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**FIGURE 427**

MEAGEEPLLLAELKPGRPHQFDWKSSCETWSVAFSPDGSWFAWSQGHCIIVKLIPWPLEEQFIPKGFEAKSRSSKN  
ETKGRGSPKEKTLDGQIVWGLAFSPWPSPPSRKLWARHHPQVPDVSLVLATGLNDGQIKIWEVQTGLLLLNLNLS  
GHQDVVRDLSFTPSGSLILVSASRDKTLRIWDLNKHGKQIQVLSGHLQWVYCCSISPDCSMLCSAAGEKSVFLWS  
MRSYTLIRKLEGHQSSVSCDFSPDSALLVTASYDTNVIMWDPYTGERLRSLHHTQVDPAMDDSDVHISSLRSVC  
FSPEGLYLATVADDRLLRIWALELKTPIAFAPMTNGLCCTFFPHGGVIATGTRDGHVQFWTAPRVLSSLKHLCKR  
ALRSFLTTYQVLALPIPKKMKEFLTYRTF

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**FIGURE 428**

AGAGCCGCCAGCGAAGCTGGGGATCGGGGCGCCGCTGCTCTCTCCCGGCTGGGGAGCCGGGGCTGCCGGCCGGCG  
CTGGTGGATGCTGCTGGCGCCCCTGCTGCCGGCGCTGCTGCTGGTGCGGGCCGCGGGGGCCCTGGTGGAGGGGCT  
CTACTGCGGCACGCGGGACTGCTACGAGGTGCTGGGCGTGAGCCGCTCGGCGGGCAAGGCGGAGATCGCGCGGGC  
CTACCGCCAGCTGGCCCGGCGCTACCACTTGACCGCTACCGGCCCCAGCCCGGAGACGAGGGCCCCGGCGGAC  
GCCGCAGAGCGCCGAGGAGGCTTTCCTGCTGGTGGCAACCGCTACGAGACACTCAAGGTCTCTCAGGCAGCTGC  
AGAGCTTCAACAGTACTGTATGCAGAATGCCTGCAAGGATGCCCTGCTGGTGGGTGTTCCAGCTGGAAGTAACCC  
CTTCCGGGAGCCTAGATCCTGTGCTTTACTCTGAAGACTCGAGAGAAGTTTGCTGAGGAATGCCTTCAAGCACAA  
AGTGATGAATGACTGCCTTCAAGTCTCAAGAAAACACTTTCCCTAACTTTTAGAGATATTTAGCCCTTTCTCTG  
TGGCCTGGTCTATAGCCAAAATCACAGATATTCATGAGTTTCTACTTGAGTGAGAAAACCTGGGTGAAGGAATAG  
AATTTTAAATAGTAATAACTGCTTGTTTTTTTTGTGCAAGTACTTTTATACATAAGATAAAACAAAACCTTACCA  
CCAAACATACCAAATGCACCTCTTTCATAAGTGAGTTACTAAGATTTCTATACCTGGAATATCATGTATGTTTC  
ATTTACTGGATGTTTACATTTTAGGAAGGAAAATAGTTTTGTTTATTTAAACAACCTGAATACTTATAAACTGTTG  
TTCCTGGAAGTTATTTATTCATAAAAAATTTGTTCTTTTGTGATGAATTTATAATTCCTAAATGAAGACCAGAA  
AGTACAAATTGCTGGGAGGAAGAATAGGCTTTATTAATCAACTGATGTCTTGATTTTCTAAATGGGAAGATTGC  
TTTATTTTAACTAATTATGGGAGCAGATTCTTAGCAAACTTCTTTGGAAAAGTTAATGTTATGATGTGCATT  
AGGCTGCCCCATCGTGTATATAAATGAAGCAGATTGATTTTGTATTCTTACGTTTCTCTGCTTTGTAGTTGTG  
GCTGTACTTAAAGAAATACAGAATTTTATATATTTAAAAATGTTTAAATGTGACCCACAGAACATTGTAAATGA  
TTAAAACTAACATGAAAATATTACAACCTAAAAGAATTCTTAACCTCACAAAGTGTTTTACTTCGACGATGTGCC  
TTTGATTTAATTTGGGACACTTTTTTAGAAGGATACATTATTCGTGTTTGCAACGGTCTTTGAAGAGCTTGAAA  
TAAAATTTCTGCTTAATTAATCAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 429**

MGAPLLSPGWGAGAAGRWWMLLAPLLPALLLVRPAGALVEGLYCGTRDCYEVLGVSR  
SAGKAEIARAYRQLARR  
YHPDRYRPQPGDEGPGRTPQSAEEAFLLVATAYETLKVSQAAAEQQYCMQNACKDALLV  
GVPA GSNPFREPRSC  
ALL

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**FIGURE 430**

AGAGCGGAGGCCGCACTCCAGCACTGCGCAGGGACCGCCTTGGACCGCAGTTGCCGGCCAGGAATCCCAGTGTCAC  
CGGTGGACACGCCTCCCTCGCGCCCTTGCCGCCACCTGCTCACCCAGCTCAGGGGCTTTGGAATTCTGTGGCCA  
CACTGCGAGGAGATCGGTTCTGGGTTCGGAGGCTACAGGAAGACTCCCACTCCCTGAAATCTGGAGTGAAGAAGCG  
CGCCATCCAGCCACCATTCCAAGGAGGTGCAGGAGAAGAGCTCTGTGATACCATTAACTTGTTGACATTACTTT  
TATTTGAAGGAACGTATATTAGAGCTTACTTTGCAAAGAAGGAAGATGGTTGTTTCCGAAGTGGACATCGCAAAA  
GCTGATCCAGCTGCTGCATCCCACCCTCTATTACTGAATGGAGATGCTACTGTGGCCAGAAAAATCCAGGCTCG  
GTGGCTGAGAAACAACCTGTGCAGCCAGTATGAGGAGAAGGTGCGCCCTGCATCGACCTCATTGACTCCCTGCGG  
GCTCTAGGTGTGGAGCAGGACCTGGCCCTGCCAGCCATCGCCGTCATCGGGGACCAGAGCTCGGGCAAGAGCTCC  
GTGTTGGAGGCACTGTCAGGAGTTGCCCTTCCAGAGGCAGCGGGATCGTGACCAGATGCCCGCTGGTGCTGAAA  
CTGAAGAAACTTGTGAACGAAGATAAGTGGAGAGGCAAGGTCAGTTACCAGGACTACGAGATTGAGATTTCCGAT  
GCTTCAGAGGTAGAAAAGGAAATTAATAAAGCCCAGAATGCCATCGCCGGGAAGGAATGGGAATCAGTCATGAG  
CTAATCACCCCTGGAGATCAGCTCCCGAGATGTCCCGGATCTGACTCTAATAGACCTTCCTGGCATAACCAGAGTG  
GCTGTGGGCAATCAGCCTGCTGACATTGGGTATAAGATCAAGACACTCATCAAGAAGTACATCCAGAGGCAGGAG  
ACAATCAGCCTGGTGGTGGTCCCCAGTAATGTGGACATCGCCACCACAGAGGCTCTCAGCATGGCCCAGGAGGTG  
GACCCCGAGGGAGACAGGACCATCGGAATCTTGACGAAGCCTGATCTGGTGGACAAAGGAAGTGAAGACAAGGTT  
GTGGACGTGGTGCAGAACCTCGTGTTCACCTGAAGAAGGGTTACATGATTGTCAAGTGCCGGGGCCAGCAGGAG  
ATCCAGGACCAGCTGAGCCTGTCCGAAGCCCTGCAGAGAGAGAAGATCTTCTTTGAGAACCACCCATATTTTCAGG  
GATCTGCTGGAGGAAGGAAAGGCCACGGTTCCTGCCTGGCAGAAAAACTTACCAGCGAGCTCATCACACATATC  
TGTAATCTCTGCCCCTGTTAGAAAATCAAATCAAGGAGACTCACAGAGAATAACAGAGGAGCTACAAAAGTAT  
GGTGTGACATACCGGAAGACGAAAATGAAAAATGTTCTTCTGATAGATAAAATTAATGCCTTTAATCAGGAC  
ATCACTGCTCTCATGCAAGGAGAGGAACTGTAGGGGAGGAAGACATTTCGGCTGTTTACCAGACTCCGACACGAG  
TTCCACAAATGGAGTACAATAATTGAAAACAATTTTCAAGAAGGCCATAAAATTTTGAGTAGAAAAATCCAGAAA  
TTTGAAGATCAGTATCGTGGTAGAGAGCTGCCAGGCTTTGTGAATTACAGGACATTTGAGACAATCGTGAAACAG  
CAAATCAAGGCACTGGAAGAGCCGGCTGTGGATATGCTACACACCGTGACGGATATGGTCCGGCTTGCTTTCACA  
GATGTTTTGATAAAAAATTTTGAAGAGTTTTTTAACCTCCACAGAACCGCCAAGTCCAAAATTGAAGACATTAGA  
GCAGAACAAGAGAGAGAAGGTGAGAAGCTGATCCGCCTCCACTTCCAGATGGAACAGATTGTCTACTGCCAGGAC  
CAGGTATACAGGGGTGCATTGCAGAAGGTTCAGAGAGAAGGAGCTGGAAGAAGAAAAAGAAAGAAATCCTGGGAT  
TTTGGGGCTTTCCAGTCCAGCTCGGCAACAGACTCTTCCATGGAGGAGATCTTTCAGCACCTGATGGCCTATCAC  
CAGGAGGCCAGCAAGCGCATCTCCAGCCACATCCCTTTGATCATCCAGTTCTTTCATGCTCCAGACGTACGGCCAG  
CAGCTTCAGAAGGCCATGCTGCAGCTCCTGCAGGACAAGGACACCTACAGCTGGCTCCTGAAGGAGCGGAGCGAC  
ACCAGCGACAAGCGGAAGTTTCTGAAGGAGCGGCTTGCACGGCTGACGCAGGCTCGGCGCCGGCTTGCCAGTTT  
CCCGGTTAACCACACTCTGTCCAGCCCCGTAGACGTGCACGCACACTGTCTGCCCCCGTTCCCGGGTAGCCACTG  
GACTGACGACTTGAGTGCTCAGTAGTCAGACTGGATAGTCCGTCTCTGCTTATCCGTTAGCCGTGGTGATTTAGC  
AGGAAGCTGTGAGAGCAGTTTGGTTTCTAGCATGAAGACAGAGCCCCACCCTCAGATGCACATGAGCTGGCGGGA  
TTGAAGGATGCTGTCTTCGTACTGGGAAAGGATTTTACGCCCTCAGAATCGCTCCACCTTGCAGCTCTCCCTT  
CTCTGTATTCTAGAACTGACACATGCTGAACATCACAGCTTATTTCTCTCATTTTTATAATGTCCCTTCACAAA  
CCCAGTGTTTTAGGAGCATGAGTGCCGTGTGTGCGTCTGTGCGAGCCCTGTCTCTCTCTGTAATAAACT  
CATTTCTAGCAG

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**FIGURE 431**

MVVSEVDIAKADPAAASHPLLLNGDATVAQKNPGSVAENNLCSQYEEKVRPCIDLIDSLRALGVEQDLALPAIAV  
IGDQSSGKSSVLEALSGVALPRGSGIVTRCPLVLKLLKLVNEDKWRGKVSQDYIEIEISDASEVEKEINKAQNAI  
AGEGMGISHELITLEISSRDVPDLTLIDLPGITRVAVGNQPADIGYKIKTLIKKYIQRQETISLVVVP SNVDIAT  
TEALSMAQEVDPEDRTIGILTKPDLVDKGTEDEKVVVDVVRNLVFHLKKGVMIVKCRGQQEIQDQLSLSEALQREK  
IFFENHPYFRDLLEEGKATVPCLAEKLTSELITHICKSLPLENQIKETHQRITEELQKYGVDIPEDENEKMFLL  
IDKINAFNQDITALMQGEETVGEEDIRLFTRLRHEFHKWSTIIENNFQEGHKILSRKIQKFENQYRGRELPGFVN  
YRTFETIVKQQIKALEEPAVDMLHTVTD MVRLAFTDVS IKNFEEFFNLHRTAKSKIEDIRAEQEREGEKLIRLHF  
QMEQIVYCQDQVYRGALQKVREKELEEEKKKKS WDFGAFQSSSATDSSMEEIFQHL MAYHQEASKRISSHIPLI I  
QFFMLQTYGQQLQKAMLQLLQDKDTYSWLLKERSDTSDKRKFLKERLARLTQARRRLAQFPG

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**FIGURE 432**

CCGCAGCCGCCGCCGCCGCCGCCGCCGCGATGTGACCTTCAGGGCCGCCAGGACGGGATGACCGGAGCCTCCGCC  
CCGCGGCGCCCCGCTCGCCTCGGCCTCCCGGGCGCTCTGACCGCGCGTCCCCGGCCCGCCATGGCCCCCTTCGCTCT  
CGCCCCGGGCCCCGCCGCCCTGCGCCGCGCGCCGAGCTGCTGCTGCTGCTGCTGGCCGCGGAGTGCGCGCTTGCCG  
CGCTGTTGCCGGCGCGCGAGGCCACGCAGTTCTGCGGCCAGGCAGCGCCGCGCCTTTTCAGGTCTTCGAGGAGG  
CCAAGCAGGGCCACCTGGAGAGGGAGTGCGTGAGGAGCTGTGACGCCGCGAGGAGGCGGGGAGGTGTTGAGA  
ACGACCCCGAGACGGATTATTTTTACCCAAGATACTTAGACTGCATCAACAAGTATGGGTCTCCGTACACCAAAA  
ACTCAGGCTTCGCCACCTGCGTGCAAAACCTGCCTGACCAGTGACGCCCAACCCCTGCGATAGGAAGGGGACCC  
AAGCCTGCCAGGACCTCATGGGCAACTTCTTCTGCTGTGTAAAGCTGGCTGGGGGGGCGGCTCTGCGACAAAG  
ATGTCAACGAATGCAGCCAGGAGAACGGGGCTGCCTCCAGATCTGCCACAACAAGCCGGGTAGCTTCCACTGTT  
CCTGCCACAGCGGCTTCGAGCTCTCCTCTGATGGCAGGACCTGCCAAGACATAGACGAGTGCGCAGACTCGGAGG  
CCTGCGGGGAGGCGCGCTGCAAGAACCTGCCCGGCTCCTACTCCTGCCTCTGTGACGAGGGCTTTGCGTACAGCT  
CCCAGGAGAAGGCTTGCCGAGATGTGGACGAGTGTCTGACGGGCGCTGTGAGCAGGTCTGCGTGAACCTCCCAG  
GGAGCTACACCTGCCACTGTGACGGGCGTGGGGGCTCAAGCTGTCCCAGGACATGGACACCTGTGAGGACATCT  
TGCCGTGCGTGCCCTTCAGCGTGGCCAAGAGTGTGAAGTCCTTGACCTGGGCGCGATGTTTCAGTGGGACCCCCG  
TGATCCGACTGCGCTTCAAGAGGCTGCAGCCCACCAGGCTGGTAGCTGAGTTTGACTTCCGGACCTTTGACCCCG  
AGGGCATCCTCCTCTTTGCCGGAGGCCACCAGGACAGCACCTGGATCGTGCTGGCCCTGAGAGCCGGCCGGCTGG  
AGCTGCAGCTGCGCTACAACGGTGTGCGCCGTGTACCAGCAGCGGCCCGGTCATCAACCATGGCATGTGGCAGA  
CAATCTCTGTTGAGGAGCTGGCGCGGAATCTGGTCATCAAGGTCAACAGGGATGCTGTATGAAAATCGCGGTGG  
CCGGGGACTTGTTCCAACCGGAGCGAGGACTGTATCATCTGAACCTGACCGTGGGAGGTATTCCCTTCCATGAGA  
AGGACCTCGTGACGCTATAAACCCCTCGTCTGGATGGCTGCATGAGGAGCTGGAACCTGGCTGAACGGAGAAGACA  
CCACCATCCAGGAAACGGTGAAAGTGAACACGAGGATGCAGTGCTTCTCGGTGACGGAGAGAGGCTCTTTCTACC  
CCGGGAGCGGCTTCGCCTTCTACAGCCTGGACTACATGCGGACCCCTCTGGACGTCGGGACTGAATCAACCTGGG  
AAGTAGAAGTCGTGGCTCACATCCGCCAGCCGACAGACAGGCGTGCTGTTTGCCTCTGGGCCCCGACCTCC  
GTGCCGTGCCTCTCTCTGTGGCACTGGTAGACTATCACTCCACGAAGAACTCAAGAAGCAGCTGGTGGTCCTGG  
CCGTGGAGCATAACGGCCTTGCCCTAATGGAGATCAAGGTCTGCGACGGCCAAGAGCACGTGGTCACCGTCTCGC  
TGAGGGACGGTGAGGCCACCTGGAGGTGGACGGCACCAGGGGCCAGAGCGAGGTGAGCGCCGCGCAGCTGCAGG  
AGAGGCTGGCCGTGCTCGAGAGGCACCTGCGGAGCCCCGTGCTACCTTTGCTGGCGGCTGCCAGATGTGCCGG  
TGACTTCAGCGCCAGTCACCGCTTCTACCGCGGCTGCATGACACTGGAGGTCAACCGGAGGCTGCTGGACCTGG  
ACGAGGCGGCGTACAAGCACAGCGACATCACGGCCACTCCTGCCCCCGGTGGAGCCCCGCGCAGCCTTAGGCC  
CCACGGGACGCGGCAGGCTTCTCAGTCTCTGTCCGAGACAGCCGGGAGGAGCCTGGGGGCTCCTCACCACGTGGG  
GCCATGCTGAGAGCTGGGCTTTCCTCTGTGACCATCCGGGCTGTAAATATCTGTAAATAGTGAGATGGACTTG  
GGGCTCTGACGCCGCGCACTCAGCGTGGGCCGGGCGCGGGGAGGCCGGCGCAGCGAGAGCGGGCTCGAAGA  
AAATAATTCTCTATTATTTTATTACCAAGCGCTTCTTCTGACTCTAAAATATGGAAAT

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**FIGURE 433**

MAPSLSPGPAALRRAPQLLLLLLAAECALAALLPAREATQFLRPRQRRAFQVFEEAKQGHLERECVEELCSREEA  
REVFENDPETDYFYPRYLDKINKYGSPYTKNSGFATCVQNLPDQCTPNPCDRKGTQACQDLMGNFFCLCKAGWGG  
RLCDKDVNECSQENGGCLQICHNKPFSFHCCHSGFELSSDGRTCDIDECADSEACGEARCKNLPGSYSCLCDE  
GFAYSSQEKACRDVDECLQGRCEQVCVNSPGSYTCHCDGRGGLKLSQDMDTCEDILPCVPFVSVAKSVKSLYLGRM  
FSGTPVIRLRFKRLQPTRLVAEFDRTFDPEGILLFAGGHQDSTWIVLALRAGRLELQLRYNGVGRVTSSGPVIN  
HGMWQTISVEELARNLVIKVNRDAVMKIAVAGDLFQPERGLYHLNLTVG GIPFHEKDLVQPINPRLDGCMRSWNW  
LNGEDTTIQETVKVNTRMQCFSVTERGSFYPGSGFAFYSLDYMRTPLDVGTESTWEVEVVAHIRPAADTGVL FAL  
WAPDLRAVPLSVALVDYHSTKKLKKQLVVLAVEHTALALMEIKVCDGQEHVVTVSLRDGEATLEVDGTRGQSEVS  
AAQLQERLAVLERHLRSPVLTFAAGGLPDVPVTSAPVTAFYRGCMTELVNRRLLDLDEAAYKHSDITAHSCPPVEP  
AAA

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FIGURE 434

CGGTGGTATCGGCCG3CAGCTGTGAGGGGGTTCCGGGAAGATGGTGCTGATCAAGGAATTCGGTGTGGTTTTGCCA  
TGTTCTGTTTCAGGAGTATCAGGTTGGGCAGCTTTACTCTGTTGCAGAAGCTAGTAAGAATGAGACTGGTGGTGGA  
GAAGGAATTGAAGTCTTAAAGAATGAACCTTATGAGAAGGATGGAGAAAAGGGACAGTATACGCACAAAATTTAT  
CACCTAAAGAGCAAAGTGCCTGCATTTCGTGAGGATGATTGCTCCCGAGGGCTCCTTGGTGTTCATGAGAAAGCC  
TGGAATGCGTACCCCTACTGTAGAACAATTGTAACGAATGAATATATGAAAGATGATTTCTTCATTAAAATCGAA  
ACATGGCACAACCAGACTTGGGAACATTAGAAAAGTACATGGTTTAGATCCAAACACATGGAAAACCTGTTGAA  
ATTGTCCATATAGATATTGCAGATAGAAGTCAAGTGAACCAGCAGACTACAAAGCTGATGAAGACCCAGCATT  
TTCCAGTCAGTCAAGACCAAGAGAGGCCCTTTGGGACCCAACCTGGAAGAAGGAGCTGGCAAACAGCCCTGACTGT  
CCCCAGATGTGTGCCTATAAGCTGGTGACCATCAAATTCAGTGGTGGGGACTGCAAAGCAAAGTAGAAAACCTTC  
ATTCAAAGCAAGAAAAACGGATATTTACAAACTTCCATCGCCAGCTTTTTTGTGGATTGACAAGTGGATCGAT  
CTCACGATGGAAGACATTAGGAGAATGGAAGACGAGACTCAGAAAGAACTAGAAACAATGCGTAAGAGGGGTTCC  
GTCGAGGCACGTCGGCTGCTGATGTCTAGATGAGTCCCTGTAGGGTCAGAGACAATGTCAAACCTGTTTACGTA  
ATCAAGGTCAAGTGAGGGGAACAAGCGCAGCCAGTGATGAGTGAAGAAGAATCTGACCAGTATCTTGAGTGTG  
ACGTTTCCCAGATGTGTGCTTGTGATGATACACACACATGCACAGTTCTCAACCACGTGTGTATATATGTATGT  
GTGCATATGTCTGTAGCTGTATATAAAGCGCATGTAGAGCTACAGATCCAGATACACACACTTGTGTATATATGT  
ACATACAGACATACTGAAGGGATTAGTACAATTTCTCCAAAGTACTGTACCTATCTTCAGCAAGAATGCAAAAGA  
AAATATTTTCAATATATATACCTGGAACAGATTTTAAATAATTATCAGAGTAATACCATTAATGGACAAATTGACT  
GCAATGTAATACTAGCTGGTATGTTTCATAAATGTCAAGCTGTGGACCAACATATATAGCCTTTTTATTATTTTTT  
TCTTCTTTTAAAGTCAGTCTGTTATAAATTTTTTTTTTAGTCCCATAAGCAGTAGACTCCCACAGAAAATTTCTTCA  
AAATTTTTTGGTGTTCGAATCTGGGATGTAACTCTGAATGTATTTATAACTATTTATTTCTGGATGGTCA  
TTATCTTGTAGCCAAATTTGACAATATAAAGTAAGGAGCAAAGTTACAGGCCAGTTTTTACTTGTGTGCCCTGAG  
GGAAAAATCCTTTTTAAAAAAATTTCTGGTTTTTATTGGATTTTTGTATTTTAAATTTCAAATATTTTCTACAT  
CAAACCTAGCAAAAATGGAGATGACGGTTTTCTGATTTATAATAAAATACTAGACAGTTTTTCAGGCTCCTGTAGAC  
AAACACATTGATGAAGAAATTAGTCTTAATAGGATTGTAGGCTGTGTAGAAAAGTTGGAAATATAGCACTTCATG  
GAGTCTTGTTTTGAAGATGACAGTTTTCTGTAACCTACAGCTTGGAACCTATGCAAATGGTCTAGATTCTCAGAG  
CTCACATGATAGGATATAGTTAGTGATGACATTTTCTCTTCTGTGGGAACACACACTTCAAGGAGGAGATAGT  
GACTTTGAGATAGGAACAGTTTTAAGATGCAGTGTGAGTCTGGCCTGCGTGCGGTGAGGAGGCCCGCCAAGAGAC  
TGGTGGACATCTGACTGTGGGATGTGCTCTCAAGTAGGACGTATCAGGACAGATTCTGAATAGGCATCATGAGA  
GTGCTGGTCAGAAACGGCTGCCACTTTTTTTAATTTAATTTTATTTTATTTTAAAGGAAGGAACAATAGCTAGG  
TAAGATTTTTATCAGCTTTCTCTGTCTGAATCCAGTTTTCTCTGTGTCAGTCCTGGAAGCTTGAATAGAATTATA  
TTGTTGAAGCCTTCAGGTCACAACTGTCTTTTGTAACTCTCTGCTCCCTAAACACGCCAACCCTGCAGTC  
AAATCACATTAGTAATCTGATTTGCTGACAGTCTGCCCTGCCTGCTCCTCGTTTTCCACATGTCCTGCATCCC  
TCCCCACTGGAGTGATTTCAGTGAATCAGACAAGGAAGGATGTGTAGGATCACTACTGCATTGCAATACCCTGT  
TATCCTCAGCAACAAAACCCACATTTTATACATCCTTTGTGTACTCAGGATAAAGACTGATGTTTACTCTCTGGG  
CACTGTTGTAAGATAGGTTTTGTCAGAGCATAATCATTGTCTGCAAAGTGTGTTGGTGGCAGGAAGATTATTGCTA  
ATTTTGTGAAATAAAGAGTCTAGCCCTCTCCTTTTAAATGAACTTAACTCTCGCTGGCATCTGTAGTATCATTGGG  
AGCTTAGGCGCACATGGAAATGAGAGCCCGGCGCATGGATTTTAAATGTTTTTCTAACAACCTGTGGAGATTGAGG  
GAATGTGTGGTGAATGTAAATACCTAGTTTACTTGCCAGTCTCTTGTGTAAATTACAGTAAACAAAGTAAATG  
AAATTTAAACAAAAAATAAATTTGATCACAAATGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 435**

MVLIKEFRVVLPCSVQEYQVGQLYSVAEASKNETGGGEGIEVLKNEPYEKDGEKGQYTHKIYHLKSKVPAFVRMI  
APEGSLVFHEKAWNAYPYCRTIVTNEYMKDDFFIKIETWHKPDLTENVHGLDPNTWKTVEIVHIDIADRSQVE  
PADYKADEDPALFQSVKTKRGPLGPNWKKELANSPDCPQMCAVKLVTIKFKWWGLQSKVENFIQKQEKRIFTNFH  
RQLFCWIDKWIDLTMEDIRMEDETQKELETMRKRGSVRGTSADV

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**FIGURE 436A**

CAGACGGAAGCCGAACGAGTTCTCTCGGCGGCTGCAGGATCGGGGGACTCCAAAGTGAAAGTGGCGGTGCGGATACG  
ACCCATGAACCGGCGAGAGACTGACTTGCATACCAAATGTGTGGTGGATGTGGATGCAAACAAGGTTATTCTTAA  
TCCTGTAAATACGAATCTTTCCAAAGGAGATGCCCCGGGGCCAGCCGAAGTGTTCCTTATGATCATTGTTTCTG  
GTCTATGGATGAATCTGTCAAAGAAAAGTATGCAGGTCAAGATATTGTTTTCAAGTGCCTTGGAGAGAATATCCT  
GCAGAATGCTTTTGATGGCTACAATGCATGTATCTTTGCCTATGGACAGACTGGCTCTGGAAAATCTTATACCAT  
GATGGGCACAGCTGACCAACCTGGATTAATCCCAAGACTTTGCAGTGGACTCTTTGAACGAACCTCAGAAAGAGGA  
AAATGAAGAACAGAGTTTTAAAGTAGAAGTGTCTACATGGAAATTTATAATGAAAAAGTTCGAGACCTTCTTGA  
TCCCAAAGGAAGCCGTGAGACGTTGAAAGTCAGAGAGCATAGTGTGTTGGGACCTTATGTCGACGGACTTTCTAA  
ACTGGCTGCCACAAGCTACAAGGATATTGAGTCGTTGATGTCTGAGGGTAACAAATCTCGCACTGTTGCTGCAAC  
CAACATGAACGAGGAGAGTAGCCGATCCCATGCAGTTCTCAAAATCACCCCTCACACATACTCTCTACGATGCGAA  
GTCTGGGACATCTGGAGAGAAAGTGGGCAAACTCAGCCTGGTGGATTTAGCTGGCAGTGAACGAGCAACGAAGAC  
AGGCGCTGCAGGGGACAGGCTGAAGGAAGGGAGCAACATTAACGAGTCCCTCACACCCTCGGTCTGGTTATCTC  
AGCTCTTGCAATCAGAGTGTCTGGCAAAAACAAGAATAAATTTGTTCCATATCGTGACTCAGTTCTCACCTGGCT  
GCTCAAAGACAGCCTCGGGGGTAACAGCAAGACCGCCATGGTGGCTACTGTGAGTCCTGCAGCTGATAACTATGA  
TGAAACCCTCTCAACTCTGCGGTATGCAGATCGAGCCAAGCACATTGTAAACAACGCTGTGGTGAATGAGGACCC  
TAATGCCCGAATTATCCGGGACCTCCGGGAAGAAGTTGAGAAACTCCGGGAGCAGCTGACCAAAGCAGAGGCAAT  
GAAATCTCCAGAGCTAAAGGACCGGCTGGAAGAATCTGAGAAGCTAATCCAGGAAATGACTGTGACCTGGGAGGA  
GAAATTAAGGAAAACGGAGGAGATTGCACAGGAACGACAGAAACAGCTTGAGAGTCTTGGAATATCTCTTCAGTC  
TTCGGGAATCAAAGTTGGGGATGATAAATGCTTCTTGTGAATCTGAATGCTGACCCAGCTCTGAATGAGCTTCT  
GGTGTACTATTTAAAGGAACATACATTGATAGGGTCAGCAAATTCCTCAAGATATCCAACCTGTGCGGCATGGGAAT  
TCTTCTGAACACTGTATTATAGACATCACGTGAGAAGGCCAGGTTATGCTGACTCCTCAGAAGAACACCAGAAC  
ATTTGTAAATGGGTCACTCTGTCTCCAGTCCAATACAGCTACACCATGGGGACAGGATATTATGGGGAAACAATCA  
TTTCTTCAGACTCAATTTGCCTAAAAAGAAAAGAAAGCAGAACGAGAGGATGAGGACCAGGATCCCTCCATGAA  
GAACGAGAATAGTTCTGAGCAGCTGGATGTAGACGGAGACTCCTCCAGCGAGGTGTCCAGTGAAGTTAACTTTAA  
TTACGAATACGCACAGATGGAGGTCACCATGAAGGCCCTGGGCAGCAATGATCCGATGCAGTCCATATTAAACAG  
CCTAGAACAACAGCATGAAGAAGAAAACGATCTGCACTGGAGCGCCAGAGGCTTATGTATGAGCACGAATTGGA  
GCAGCTCCGGAGAAGGCTGTCTCTGAGAAGCAGAACTGCCGGAGCATGGACAGGTTTTCTTTCCACTCGCCCAG  
CGCTCAGCAACGCTTAAGACAGTGGGCTGAGGAGAGAGAAGCAACGTTGAATAACAGCCTGATGAGGCTGAGGGA  
ACAAATTGTTAAGGCCAATCTATTGGTGAGAGAAGCTAATTACATTGCTGAGGAGCTGGATAAAAGAACAGAATA  
CAAAGTTACCCTACAGATTCCAGCCTCCAGCCTGGATGCCAACAGGAAGCGAGGCTCTCTTCTTAGTGAGCCTGC  
AATCCAGGTGAGAAGAAAAGGAAAAGGAAAGCAGATTGGTCTTTGGAAAACTGGACAACAGGCTGTTGGATAT  
GAGAGACCTTTATCAGGAGTGGAAAGAGTGTGAAGAAGATAACCCAGTAATACGATCATACTTCAAACGTGCTGA  
TCCATTCTATGATGAGCAGGAAAATCTCAGTCTCAATTGGGGTGGCCAATGTCTTCTTCGAGTCACTTTTCTATGA  
TGTGAAGTTACAATACGCTGTTCCCATCATCAACCAGAAAGGAGAGGTGGCAGGTTCGGCTGCACGTGGAGGTGAT  
GCGACTCAGTGGTGTGTTGGGGAGAGGATCGCAGGAGGCGATGAGGTGGCAGAGGTCCCCTTTGAGAAGGAGAC  
CCAGGAGAACAACTGGTGTGCATGGTTAAATCTCGAAGCTACTGGGTTGCCACAGCATCTGTCCACTTTGT  
GTTCTGCAAATACAGCTTCTGGGATCAACAGGAGCCGGTGATTGTGCTCCTGAAGTGGACACCTCCTCCTCTTC  
CGTCAGCAAGGAGCCGCACTGCATGGTTGTCTTTGATCATTGCAATGAGTTTTCTGTTAACATCACCGAAGACTT  
TATCGAGCATCTTTCCGAAGGAGCATTGGCAATTGAAGTATATGGACATAAAATAAACGATCCCCGGAAGAAACCC  
CGCCCTGTGGGATTTGGGAATCATCCAAGCAAAGACACGTAGTCTTCGGGACAGATGGAGTGAAGTGACCAGGAA  
ATTGGAATTCTGGGTTCAAATCTTGAACAGAATGAGAATGGTGAATACTGCCCTGTAGAAGTGATTCTGCAAA  
GGATGTCCCAACAGGAGGAATCTTCCAGTCCGGCAGGGGCAGTCCCGGAGAGTTCAAGTCGAAGTGAAGTCAGT  
GCAGGAATCTGGGACTTTTACCACTGATGGAAGAATGTATACTGTCTGTTGGCATTGGATGTGTCAAAGTTAGACC  
GCTCAGAGCCCCCAGAACACATGAGACCTTCCATGAGGAAGAGGAAGACATGGACAGCTACCAGGATCGAGATTT  
AGAGAGACTTCGTAGAAAATGGCTAAATGCATTAACAAAACGTCAGGAGTACTTGGATCAACAATTGCAAAAGCT  
TGTCAGTAACGCTGATAAAACAGAGGATGATGCTGACCGTGAAGCGCAGCTTCTGGAGATGCGGTTGACCCTAAC  
TGAGGAGAGGAACGCGGTGATGGTCCCCTCTGCTGGCAGTGGTATTCCAGGGGCCCCAGCAGAATGGACCCCAGT  
ACCTGGGATGGAGACACACATTCTGTATATTCTGGACTTAAATGCTGATGATTTCAGCTCTCAGGATAATCT



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**FIGURE 436B**

TGATGACCCAGAAGCTGGTGGATGGGATGCGACCTTGACTGGGGAAGAAGAAGAGGAGTTCTTTGAATTGCAGAT  
TGTGAAGCAGCATGATGGGGAGGTGAAAGCAGAAGCCTCCTGGGACTCCGCGGTGCATGGCTGCCCTCAGCTCAG  
CAGGGGCACGCCCCTGGACGAGCGGTTGTTCCTGATCGTGCGGTGACGGTCCAGCTCAGCCACCCTGCTGACAT  
GCAACTGGTGTTCACGAAGAGAATCTGTGTCAATGTTACGGCCGCCAGGGTTTTGCACAGAGTCTCCTAAAAAA  
GATGTCTCATCGAAGTTCTATTCTGGCTGTGGAGTGACTTTTTGAAATTGTCTCCAATATTCCAGAGGATGCCCCA  
GGGAGTGGAAGAACGGGAAGCATTAGCAAGAATGGCAGCCAATGTTGAAAACCCAGCTTCTGCTGACTCGGAGGC  
TTATATTGAAAAGTACCTCAGGAGCGTGTGGCTGTAGAAAACCTCCTGACTTTAGATCGTCTGCGCCAGGAAGT  
TGCAGTGAAGGAACAGTTAACAGGAAAAGGAAAGTTGAGCAGGAGGAGTATCAGTTCTCCAAATGTGAACAGATT  
GTCTGGAAGCCGACAAGATCTCATTCATCATACTAGGTCAGCAACAAGGGCCGGTGGGAAAAGTCAGCAGGA  
TGTATCCCAAACACAGTTTCCAGAGGAATAGCTCCTGCCCCCGCCCTCTCTGTTTCTCCCCAAAATAACCATTC  
TCCAGATCCAGGACTCAGTAACCTTGCAGCATCCTACTTGAATCCTGTCAAATCCTTCGTGCCGCAAATGCCAAA  
GCTCCTCAAGTCTCTCTTTCCCGTCCGCGATGAGAAGAGGGGCAAGCGCCGTCTCCCTCGCACACCAGCCCCGT  
GCCCCGCATCATGGTGCAGTCAGCCAGCCCGGACATCAGGGTGACCAGGATGGAGGAGGCTCAGCCGGAGATGGG  
CCCTGACGTGCTGGTGCAGACGATGGGGGCCCCGGCCTTGAAGATCTGCGACAAACCTGCCAAAGTGCCTTCCCC  
ACCGCCTGTCTAGCTGTACAGCGGTACCCCCGGCTCCGGAGGCACAGGACGGGCCCCCAGCCCCCTGAGTGA  
AGCCTCTAGCGGGTACTTCTCCACAGCGTCTCCACCGCGACCCTGTGCGACGCCCTGGGCCCCGGCTGGACGC  
TGCGGCCCCGCCGGGTCCATGCCACCGCCCCTGAGGCCGAGCCCGAGGCGCCCATCAGCCACCCCCACCGCC  
CACGGCCGTCCCCGCCGAGGAGCCCCCTGGCCCCAGCAGCTCGTGAGCCCCGGTGGGAGCGCCCCGACCTCGA  
GGCCCCGGCGCCCGGTCTCCCGTCCGCGTCCGGAGGGTGGGGCCTCGGAGTTGCGCTCCTTCTCGCGCATGCT  
GGCTGGGGACCCCGGTCTCTCCCGGGGGCCGAGGGGAATGCGCCGGCCCCGGGCGCCGGGGGACAGGCCCTGGC  
CTCTGATTCCGAGGAAGCTGACGAGGTCCCGGAGTGGCTCCGAGAGGGCGAGTTGCTCACCGTGGGCGCCCAAA  
AACGGGCGTGGTGAGATACGTGGGGCCTGCCGACTTCCAAGAGGGCACGTGGGTGCGCGTGGAGCTCGACCTGCC  
CTCAGGTAAGAATGACGGTTCCATCGGCGGGAAGCAGTACTTCAGGTGTAACCCTGGCTACGGGCTGTGTGTCAG  
GCCCAGCCGGGTCCGAGGGCCACGGGCCCCGTGTGCGGCGGCGCAGCACAGGACTCCGGCTGGGTGCCCCGAGGC  
CCGCCGAGCGCCACCCTCTCGGGCTCCGCCACCAACCTGGCCTCGCTGACAGCTGCCCTGGCCAAGGCCGACAG  
GAGCCACAAGAACCCTGAGAACCAGGAAATCCTGGGCCAGCTGAGCCGCTGCCTTAGGGCGAACTTTCTGGGGGT  
GCCCCGCCCCCTTTTGAGCCCTGCCAGTGACAGCCC TGAGGAGCCAGGAGCCCGGTGGCCCCCTCCCCAGGGGACAG  
GGCGATGAATGCTTTTTGCACGACACAGGGCTGGTGACCTCCCTGGGCCTCTGGAAGCTTTGTTTCTTGTGTAAC  
CGGGTAAAGTGGGGGCTCAACTGTGCTCCTCCGGTGGATGGAAGTTCTGGGTGCCCCGAGGGGCTGGGGGAT  
GCTAGGACTGAGACCCTGGGTGGTGACGCGCTGGTGATCTTGCTGTGTGCTGTGCTGGGGCCTTATGTTGCT  
CTTTCTATCATTTCCATTCTGGTGGCCCCACTAATGTCTTAACCTAAACCATAATTGTAACCAAGTGCCTTTCCCTC  
CCACTGGAGGGCAAGCCCCCCCCACCCACCCAGGATGTCTGGCTCACTCCGCAAGCCCCCAGCCTCCCACCT  
GGTCCCAGTTTCCCGCAAAGTGCTCTGGGGGACCCCCAGCCTCCCACCTGGTCCCAGGTTCCACAAGTGCT  
CTGGAGGGCCCTGGGCTCTGGCAGATGGTCTGGTGGCCAGACGGGGCCGAGGGCCTGAGCCCCCATCCCT  
CCTCTGCCAGGGTTTCTTAGCGGTTTCTCTGTGGATGTTTTGGCATCTTTAGACACCTGGAAGTCTCTTATGTT  
TGCCGTTTATTCCCTTACAGAAGGCTTGGAATGTATTTATTTATTTATTTTTTCAAAATCCGAAATCATTG  
CGAGCCGCAATCGTCGTCTGCCTGTGTGGGGGGGCCAGGGCCTGCCTTGACGTTGCAGCCTCTCTGGCCATTG  
CAGAGCTGCTGGCCTCTGCCCAGGTGGAGGGTCC TGGGGACGGCAGAGGATAAAGCCCCCTCCTCACATCCCTC  
TATTGCGGATCCACAGTGGCCTTACTCTTAACCTTGGATGAGAGCAAAAACCTGGGAGAATGATGTGCTTCTGTAG  
TCGGTGACAAAGGAAGAGGCATTGCTACTTTATTTGGTGCATTTTGGTTTTCTAGGAAGGTCTTTGGGTCATTTT  
AACTTCTCGGCAACTCCAGACTCTCAGAGTGTGGGGCTGGGGCCTGGCGGTGGGCTGGTGCAGGGAGTGTGCT  
GGTTAGTCTCCAGACCCTCACAGCAGCCACGCCCCAGGCCACCGTGCATGGTGTGGGCGGGACAGCCGGAAGC  
TTCCGGGGTGGCCTCCACCTCCTGGCTGGGGCACTTATGCTCCAGAGCCTTTGGTGCCAGGTTTGTGGGATGGG  
GGTTAGCGTCTATGTGTGAAGGCCACCAATCTAGGGACAGGAGTCTGGGTCAAGATTACACAGCCACCTTG  
GAGCTGGTTTTCTAGTTCTCACATTTAGTCAACATCTAGAAAGCGCTGCGGAAGGCTCTGGTTCTCTAGGGACTTG  
AAGGCGCCAACAGAGTAGTCTCCATGGTGGGCTGTCCAGCCCTGGCTGCGAGGACAGGTTGTCTTTCTCTCCC  
CAGTTGGCGAGGGACACGAAGGCTGCGGCCGGGCTGGCAGAGGGCCCGGCCCTGGGGGAGGCACTCCTCCAGG  
GCTCTCCCTGTCTTAGCCGATTTTGAGGGAACCTGTGGCACCTGTCCCTGGATGAAGAGCTGTACCTCTGCC

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**FIGURE 436C**

TTGCCCTTTAACTCAACCCGCTTCCCAGCACAGCGGCTTTCTTTTAAAACCTGTTTCACTGAGAAGTTTGTTTT  
TGGGTCCGCTGGTGTCACTATGGCCTGGGTGAGAGGCCAGCACTGCTGCTGCCCTGAGGGGAAACGCCTGGGCCG  
TG TAGTGGGGACGCTCTGGGAATGGTGGCGGACGGGCAGCGTGGGTGGGACCTGGCACTTCGTGGTGGCTGAGCC  
ATCCACCCAGCAGCGGCCTCCTGTAGCACCATATTGGGAAAGTCCTGGGGGACGTGTGTGTCGTGCTTTTTACCA  
TCGGTTTGACTTACAGTGGAGTAGAACGAGCCAGAGTTCCTGACTTGAGCAGGTGGATTTGGGCCCAGGCCCTGT  
TCACTCTTGCTTCTCGGTGCGGACTAATGTGAGCTTGTGGCTGGGAAAGAGGGATGTGCAGTGACGTGGTCACCA  
AGGCAGTGAGCCCCGCTGACCCCGGGCCAGCACTTGGCAGGCAGGAGGTGCGGTCTCCAGAGTGGTGGGCCAGGG  
CGGGCTGGCCTCCGTCTTCTATCTTCTTTTCTTGCTCCCTGACCAGCAGACTCACCTCCCAAGAACGCCTGCCC  
GCCACCCGCCTTAGGACTCCCAGTGCCTCCTGGAAGGCCCCAGGAGTGGCACCTTAGTGTGGGTGCGCCCGCA  
GATGGCACCCAAGGCCGGGAAGGGCAGTAACTGCACACGCGGCGCTGTCAGAGATGGGGGTGGGGATGCTTCTG  
GGGGCCCTGCTTCCCCATTGTGTGCCAGAACATCCCTGGCCCCACCCCGCCACTTCCCTCGGGCCCTTATGAAG  
GACTGAGGCTCCAGGGTGAGAAGGCTCACTTCTGCCCCAGGCACTGCGTCCAGCAGCAGAGGGGACAGGGGGCAG  
GTGTGTGACTGGGTTCTGGGTACCCAGGCCTGACCAGAGGGAGCGGGAGGGCAGAGGTGAGGAGGGGGAAGATG  
TTTCTGGGCCTACCAAGGTTCAACAAGAGAACGGAGCTGGGAATGTGACTGCTGGAGCCTGAGAGGTGGAGGAGT  
TCTGATCCCCCGTTACTTCCTAGCATTTTCTCCTCTTGCTTAAAAGTTCCTGTATGTGAAACGGGAAGTCCTG  
AGAGTGTGTGTTGGTGGCTGTGCGCACGCACACAAGACGGGAGTCACCTGTGCTTCTGCCCCAAGATACTGACC  
CATTGAACCCCCAAAGCATCTTTCTCTCCACAAAGTCCGTGGTGCCTTCTGGTGGGCTGCAGACACTAATGGTG  
TTGGGGGGTCTTGGAACAGCTTCTCTATGTGTGGATTTCGTGTAAATGCGAAGAGTTCACATATAAAGAAGTGACT  
TTGATTCTGTGATTATATTGATTTGGTACACAGTAAATGGGAGTTTAAAAAATCCAAAGACTCTAATGACTTGTA  
AAGACTCTAATGATTTGTATCATGTAATGAACATAACCACCTGTAATTTTGTACCATATGTGTCTTTCCATCAAA  
TGACCAACAGCTTCTCAATAAAACCAGACCATTTCACCTGC

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**FIGURE 437**

MGDSKVKVAVRIRPMNRRETDLHTKCVVDVDANKVILNPVNTNLSKGDARGQPKCFAYDHCFSMDES VK EKYAG  
QDIVFKCLGENILQNAFDGYNACIFAYGQTGSGKSYTMMGTADQPGLIPRLCSGLFERTQKEENEEQSFKVEVSY  
MEIYNEKVRDLLDPKGSRTILKVREHSVLGPYVDGLSKLAATSYKDIESLMSEGNKSRIVAATNMNEESSRSHAV  
LKITLTHTLTYDAKSGTSGEKVGKLSLVDLAGSERATKTGAAGDRLKEGNSNINESLTTLGLVISALADQSAGKNKN  
KFVPYRDSVLTWLLKDSLGGNSKTAMVATVSPAADNYDETTLSTLRYADRAKHIVNNAVVNEDPNARIIRDLREEV  
EKLREQLTKAEAMKSPKLDKRLKEESEKLIQEMTVTWEEKLRKTEEIAQERQKQLESGLISLQSSGIKVGDDKCFL  
VNLNADPALNELLVYYLKEHTLIGSANSQDIQLCGMGIPEHCIIIDITSEGQVMLTPQKNTRTFVNGSSVSSPIQ  
LHHGDRILWGNHFFRLNLPKKKKKAEREDEDQDP SMKNENSSEQLDVGDDSSSEVSSEVNFNYEY AQMEVTMKA  
LGSNDPMQSI LNSLEQQHEEEKRSALERQRLMYEHELEQLRRRLSPEKQNCRSMDFSFHSPSAQQRLRQWAEER  
EATLNNLSMLRLREQIVKANLLVREANYIAEELDKRTEYKVTLQIPASSLDANRKRGSLLSEPAIQVRRKGKGKQI  
WSLEKLDNRLLDMRDLYQEWKECEDNPVIRS YFKRADPFYDEQENLSLIGVANVFLES LFYDVKLQYAVPIINQ  
KGEVAGRLHVEVMRLSGDVGERIAGGDEVAEVPFEKETQENKLVCMVKILQATGLPQHLSHFVFCYSFWDQQEP  
VIVAPEVDTSSSSVSKEPHCMVVF DHCNEFSVNITEDFIEHLSEGALAEVYGHKINDPRKNPALWDLGIIQAKT  
RSLRDRWSEVTRKLEFWVQILEQ NENGEYCPVEVISAKDVPTGGIFQLRQGQSRRVQVEVKS VQESGTLPLMEEC  
ILSVGIGCVKVRPLRAPRTHETFHEEEEDMSYQDRDLERLRKWLNALTKRQEYLDQQQLQKLVSKRDKTEDDAD  
REAQLLEMRLTLTEERNAVMPVSAGSGIPGAPAEWTPVPGMETHIPVIFLDLNADDFSSQDNLDDPEAGGWATL  
TGEEEEEEFFELQIVKQHDGEVKAEASWDSAVHGCPLSRGTPVDERLFLIVRVTVQLSHPADMQLVLRKRICVNV  
HGRQGFAQSLLKKMSHRSSIPGCGVTFEIVSNIPEDAQGV EEREALARMAANVENPASADSEAYIEKYLRSVLAV  
ENLLTLDRLRQEVAVKEQLTGKGKLSRRS ISSPNVNRLSGSRQDLIPSYSLGSNKGRWESQQDVSQTTVSRGIAP  
APALSVSPQNNHSPDPGLSNLAASYLNPVKS FVPQMPKLLKSLFPVRDEKRGKRPSPLAHQPVP RIMVQSASPD I  
RVTRMEEAQPEMGPDVLVQTMGAPALKICDKPAKVSPPPVIAVTAVTPAPEAQDGPPSP LSEASSGYFSHSVST  
ATLSDALGPGLDAAAPP GSMTAPEAEPEAPISHPPPTAVPAEEPPGPQQLVSPGRERPDLEAPAPGSPFRVRR  
VRASELRSFSRMLAGDPGCSPGAEGNAPAPGAGGQALASDSEEADVEPWLREGEFVTVGAHKTGVVRYVGPADF  
QEGTWVGVELDLP SGKNDGSI GGKQYFR CNPGYGLLV RPSRVRRATGPVRRRSTGLRLGAPEARRSATLSGSATN  
LASLTAALAKADRSHKNPENRKSWAS

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**FIGURE 438A**

CAGACAGGATATTCACTGCTGTGGCAAGGCCTGTAGAGAGTTTCGAAGTTAGGAGGACTCAAGACGGTCCCTCCC  
TGGACTTTTCTGAAGGGGCTCAAAAGATGACACGCGCCAGAGCTGGAAGGCGTCGCCAATTGGTCCAACTTTTC  
CTCCTCCCTTTTTGCGGATGAGAAAACTGAGGCCAGGTTTGGGATTTCAGAGCCCGGGATTTCGCGCAACG  
CCGACAACCACATTCGCGGCTATTCTGACCCGCCCGGTTCCGGGACGCTCCCTGGGAGCCGCCGCCGAGGGC  
CTGCTGGGACTCCCGGGGACCCGCCGTCGGGGCAGCCCCACGCCCGCGCCGCCGGAACGGCGCCGCTG  
TTGCGCACTTGCAGGGGAGCCGGCAGTGTAGGGGAGGAGGAGGAGCAAGCGGGGCTGGGAGGGCTGCTGGC  
GCGGGCTCGCCGGCTGTGTATGGTCTATCGCAGGCAGCTGACCTTTGAGGAGGAAATCGTGCTCTCCGCTCCTT  
CCTGTAGTAACAGCCGCCGCTGCCGCCGCCAGGAACCCCGCGGGAGCGAGAGCCGCCGGGGCGCAGAGCCG  
GCCCGGCTGCCGGACGGTGGGGCCCCACCAGGTGAACGGCCATGGCGGGCTGGATCCAGGCCAGCAGCTGCAGG  
GAGACGCGCTGCGCCAGATGCAGGTGCTGTACGGCCAGCACTTCCCCATCGAGGTCCGGCAGTACTTGGCCAGT  
GGATTGAGAGCCAGCCATGGGATGCCATTGACTTGGACAATCCCCAGGACAGAGCCCAAGCCACCCAGCTCCTGG  
AGGGCCTGGTGCAGGAGCTGCAGAAGAAGGCGGAGCACCAGGTGGGGGAAGATGGGTTTTTACTGAAGATCAAGC  
TGGGGCACTACGCCACGCAGCTCCAGAAAACATATGACCGCTGCCCCCTGGAGCTGGTCCGCTGCATCCGGCACA  
TTCTGTACAATGAACAGAGGCTGGTCCGAGAAGCCAACAATTGCAGCTCTCCGGCTGGGATCCTGGTTGACGCCA  
TGTCCAGAAAGCACCTTCAGATCAACCAGACATTTGAGGAGCTGCGACTGGTCACGCAGGACACAGAGAATGAGC  
TGAAGAACTGCAGCAGACTCAGGAGTACTTCATCATCCAGTACCAGGAGAGCCTGAGGATCCAAGCTCAGTTTG  
CCCAGCTGGCCAGCTGAGCCCCCAGGAGCGTCTGAGCCGGGAGACGGCCCTCCAGCAGAAGCAGGTGTCTCTGG  
AGGCCTGGTTGCAGCGTGAGGCACAGACACTGCAGCAGTACCGCGTGGAGCTGGCCGAGAAGCACCAGAAGACCC  
TGCAGCTGCTGCGGAAGCAGCAGACCATCATCCTGGATGACGAGCTGATCCAGTGGAAGCGGCGGCAGCAGCTGG  
CCGGAACGGCGGGCCCCCGAGGGCAGCCTGGACGTGCTACAGTCTGGTGTGAGAAGTTGGCCGAGATCATCT  
GGCAGAACCGGCAGCAGATCCGCAGGGCTGAGCACCTCTGCCAGCAGCTGCCCCATCCCCGGCCAGTGGAGGAGA  
TGCTGGCCGAGGTCAACGCCACCATCACGGACATTATCTCAGCCCTGGTGACCAGCACATTCATCATTGAGAAGC  
AGCCTCCTCAGGTCTGAAGACCCAGACCAAGTTTGCAGCCACCGTACGCCTGCTGGTGGGCGGGAAGCTGAACG  
TGCACATGAATCCCCCCCAGGTGAAGGCCACCATCATCAGTGAGCAGCAGGCCAAGTCTCTGCTTAAAAATGAGA  
ACACCCGCAACGAGTGCACTGGTGAGATCCTGAACAACTGCTGCGTGATGGAGTACCACCAAGCCACGGGCACCC  
TCAGTGCCCACTTCAGGAACATGTCAGTGAAGAGGATCAAGCGTGCTGACCGGCGGGGTGCAGAGTCCGTGACAG  
AGGAGAAGTTCACAGTCTGTTTGAAGTCTCAGTTCAGTGTGGCAGCAATGAGCTTGTGTTCCAGGTGAAGACTC  
TGTCCTTACCTGTGGTTGTCATCGTCCACGGCAGCCAGGACCACAATGCCACGGCTACTGTGCTGTGGGACAATG  
CCTTTGCTGAGCCGGGCGAGGGTGCCATTTGCCGTGCCGTGACAAAGTGCTGTGGCCCGCAGCTGTGTGAGGCGCTCA  
ACATGAAATTCAAGGCCGAAGTGCAAGCAACCGGGGCTGACCAAGGAGAACCTCGTGTTTCTGGCGCAGAAAC  
TGTTCAACAACAGCAGCAGCCACCTGGAGGACTACAGTGGCCTGTCCGTGTCCTGGTCCCAGTTCAACAGGGAGA  
ACTTGCCGGGCTGGAACACACCTTCTGGCAGTGGTTTGACGGGGTGATGGAGGTGTTGAAGAAGCACCACAAGC  
CCCACTGGAATGATGGGGCCATCCTAGGTTTTGTGAATAAGCAACAGGCCACGACCTGCTCATCAACAAGCCG  
ACGGGACCTTCTTGTGCGCTTTAGTGACTCAGAAATCGGGGGCATCACCATCGCCTGGAAGTTTGACTCCCCGG  
AACGCAACCTGTGGAACCTGAAACCATTCACCACGCGGGATTCTCCATCAGGTCCCTGGCTGACCGGCTGGGGG  
ACCTGAGCTATCTCATCTATGTGTTTCTGACCGCCCCAAGGATGAGGTCTTCTCCAAGTACTACACTCCTGTGC  
TGGCTAAAGCTGTTGATGGATATGTGAAACCACAGATCAAGCAAGTGGTCCCTGAGTTTGTGAATGCATCTGCAG  
ATGCTGGGGGAGCAGCAGCGCCACGTACATGGACCAGGCCCCCTCCCAGCTGTGTGCCCCCAGGCTCCCTATAACA  
TGTACCCACAGAACCCTGACCATGTACTCGATCAGGATGGAGAATTCGACCTGGATGAGACCATGGATGTGGCCA  
GGCAGTGGAGGAACCTTACGCCGACCAATGGACAGTCTTGACTCCCGCTCTCGCCCCCTGCCGGTCTTTTCA  
CCTCTGCCAGAGGCTCCCTCTCATGAATGTTTGAATCCACGCTTCTCTTTGAAACAATATGCAATGTGAAGCG  
GTCGTGTTGTGAGTTTAGTAAGGTTGTGTACACTGACACCTTTGCAGGCATGCATGTGCTTGTGTGTGTGTGT  
GTGTGTGTCCTTGTGCATGAGCTACGCCTGCCTCCCTGTGCAGTCTGGGATGTGGCTGCAGCAGCGGTGGCCT  
CTTTTCAGATCATGGCATCCAAGAGTGCGCCGAGTCTGTCTCTGTGATGGTAGAGACCGAGCCTCTGTCACTGCA  
GGCACTCAATGCAGCCAGACCTATTCTCCTGGGCCCTCATCTGCTCAGCAGCTATTTGAATGAGATGATTGAG  
AAGGGGAGGGGAGACAGGTAACGTCTGTAAGCTGAAGTTTCACTCCGGAGTGAGAAGCTTTGCCCTCCTAAGAGA  
GAGAGACAGAGAGACAGAGAGAGAGAAAGAGAGAGTGTGTGGGTCTATGTAAATGCATCTGTCTCATGTGTTGA  
TGTAACCGATTCTCTCAGAAGGGAGGCTGGGGGTTCAATTTTCAGTAGTATTTTATACTTTAGTGAACGTGG

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**FIGURE 438B**

ACTCCAGACTCTCTGTGAACCCTATGAGAGCGCGTCTGGGCCCCGCCATGTCCTTAGCACAGGGGGGCCCGCGGT  
TTGAGTGAGGGTTTCTGAGCTGCTCTGAATTAGTCCTTGCTTGGCTGCTTGGCCTTGGGCTTCATTCAAGTCTAT  
GATGCTGTTGCCCCACGTTTCCCGGGATATATATTCTCTCCCTCCGTTGGGCCCCAGCCTTCTTTGCTTGCCCTCT  
CTGTTTGTAACCTTGTCGACAAAGAGGTAGAAAAGATTGGGTCTAGGATATGGTGGGTGGACAGGGGGCCCCGGGA  
CTTGAGGGTTGGTCCTCTTGCCCTCCTGGAAAAACAAAAACAAAAACTGCAGTGAAAGACAAGCTGCAAATCA  
GCCATGTGCTGCGTGCCGTGTGGAATCTGGAGTGAGGGGTAAAAGCTGATCTGGTTTGACTCCGCTGGAGGTGGGG  
CCTGGAGCAGGCCTTGCGCTGTTGCGTAACTGGCTGTGTTCTGGTGAGGCCTTGCTCCCAACCCACACGCTCCT  
CCCTCTGAGGCTGTAGGACTCGCAGTCAGGGGCAGCTGACCATGGAAGATTGAGAGCCCAAGGTTTAACTTCTC  
TGAAGGGAGGTGGGGATGAGAAGAGGGGTTTTTTTGTACTTGTACAAAGACCACACATTTGTGTAAACAGTGTT  
TTGGAATAAAATATTTTTTTCAT

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**FIGURE 439**

MAGWIAQQLOGDALRQMQLVLYGQHFPIEVRHYLAQWIESQPWDAIDLDPQDRAQATQLLEGLVQELQKKAHQ  
VGEDGFLLIKILGHYATQLQKTYDRCPLELVRCIRHILYNEQRLVREANNCS SPAGILVDAMSQKHLQINQTFEE  
LRLVTQDTENELKKLQQTQEQYFI IQYQESLRIQAQFAQLAQLSPQERLSRETALQQKQVSLEAWLQREAOQLQQY  
RVELAEKHQKTLQLLRKQQTII LDDELIQWKRRQQLAGNGGPPEGSLDVLQSWCEKLAEI IWQNRQQIRRAEHL  
QQLPIPGPVEEMLAEVNATITDI ISALVTSTFI IEKQPPQVLKTQTKFAATVRLLVGGKLVNVMNPPQVKATII S  
EQQAKSLLKNENTRNECSGEILNNCCVMEYHQATGTL SAHFRNMSLKRIKRADRRGAESVTEEKFTVLFESQFSV  
GSNELVFQVKTLSPVVVIVHGSQDHNATATVLWDNAFAEPGRVPFAVPDKVLWLPQLCEALNMKFKAQEVQSNRGL  
TKENLVFLAQKLFNNSSSHLEDYSGLSVSWSQFNRENLPGWNYTFWQWFDGVMVLEKHHKPHWNDGAILGFVNK  
QQAHDLLINKPDGTFLLRFSDSEIGGITIAWKFDSPERNLWNLKPFTTRDFSIRSLADRLGDL SYLIYVFPDRPK  
DEVFSKYYPVLAKAVDGYVKPQIKQVVPEFVNASADAGGSSATYMDQAPSPAVCPQAPYNMYPQNPDPHVLDQDG  
EFDLDETMDVARHVEELLRRPMDSLDSRLSPAGLFTSARGSL

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**FIGURE 440A**

TCTCCTCCTACCGGTCGGGTGCCCCGGGGCGTTCCCTCTGCCGCTGCTTCTCGGCGCGGTTCTACCCGGCCGCT  
CCCCGAGGCGCGGGCTCTGGCGGCCTCGACCGACTAGGACGCCCCGTGCGCCGCCCCGCGGGCCGCCGCTCCCTG  
GGCGCGCGGGGCCAGCATGGAGCTCTTCCAAGCCAAGGACCACTACATCCTGCAGCAGGGCGAGCGCGCGCTGTG  
GTGCAGCCGCCGCGACGGCGGCCTCCAGCTCCGACCCGCTACTGATCTACTTCTTGCCTGGAATCCCATTGTGTT  
GGGGTTGGTAGAAGGTGTTATTGGGAAAATTCAACTTCATTTCAGATCTTCCATGGTGGCTTATTCTAATTCGGCA  
GAAAGCATTGGTGGGCAAACCTCCAGGAGACCATGAGGTCTGTAAAGTTACCAAATGCTGTGCTCTCACTTTC  
TGAAATGGAACCTCAGGATCTTGAGCTAGAGCTCTGTAAGAAGCATCATTGTTGGTATTAACAAACCAGAGAAGAT  
CATACCATCTCCTGATGACTCAAAGTTTCTACTGAAGACCTTTACGCATATTAAATCCAATGTGTCTGCTCCTAA  
TAAAAAGAAAGTTAAGGAAAGTAAAGAGAAGGAGAAGTTGGAGAGGAGATTACTTGAAGAGTTGCTGAAGATGTT  
CATGGACTCAGAATCCTTTTATTATAGCTTGACCTATGACCTGACCAATTCCGTGCAGAGGCAGAGCACTGGGGA  
GAGGGACGGTCGGCCCTCTGGCAGAAGGTTGATGACCGATTTTTTTGGGAATAAATACATGATACAAGATCTTAC  
TGAGATTGGTACTCCAGATGTGGACTTTTGGATTATCCCCATGATCCAAGGTTTTGTGCAGATTGAAGAAGTTGT  
GGTTAATTATACCGAATCATCTGATGATGAGAAAAGCAGCCCAGAGACCCCCCTCAGGAGTCCACCTGTGTAGA  
TGATATTACCCACGATTTCTAGTGGCTCTCATTTTACGCCGAAGTAGGCACAGAGCAGGAATGCGCTATAAAGC  
AAGAGGAGTGGATAAAAAATGGAATGTTGCCAATTATGTGGAGACTGAGCAGTTGATTTCATGTTTATAATCATA  
CCTGTCAATTGTTCAAACACGAGGCTCTGTGCCTGTCTTTTGGAGCCAGGTTGGGTATCGATATAACCCAAGACC  
GCGGCTGGACAGAAGTGAAAAGGAAACTGTTGCCTATTTCTGTGCCATTTTGAAGAACAACCTGAACATTTACAA  
AAAACAGGTTATTATTAACTTGGTAGACCAGGCAGGAAGAGAGAAGATTATTGGCGATGCTTACCTGAAGCAAGT  
GTTGCTTTTTCAACAACCTCACACCTCACTTACGTTTCTGTTGACTTCCATGAGCACTGCCGAGGAATGAAGTTTGA  
GAATGTTTCAGACACTAACAGATGCCATTTATGACATTATTCTTGATATGAAGTGGTGTGGGTTGATGAAGCTGG  
GGTAATATGTAAGCAGGAAGGGATTTTTCTGTGTTAATTGTATGGACTGCCTGGATCGCACCAACGTGGTCCAAGC  
TGCCATCGCGAGAGTGGTCATGGAACAGCAGCTGAAAAAATTAGGTGTGATGCCCCCGGAACAGCCATTACCTGT  
GAAATGTAATCGCATCTACCAGATAATGTGGGCCAATAATGGTGACTCCATTAGCAGACAGTATGCTGGGACAGC  
TGCTCTGAAGGGTGACTTTACAAGGACAGGAGAAAGGAAGTTAGCAGGAGTTATGAAAGATGGAGTGAACCTCAGC  
AAACAGATATTACCTCAACCGATTTAAGGATGCTTATAGGCAAGCTGTTATAGATTGATGCAAGGCATTCCAGT  
GACAGAAGATCTTTATTCCATATTTACCAAGGAGAAAGAACATGAAGCTTTGCATAAGGAAAATCAGAGAAGCCA  
CCAGGAACATAATTAGCCAGCTCTTACAAAGTTACATGAAGTTACTACTGCCTGATGATGAGAAGTTCCATGGGGG  
CTGGGCCCTCATTGACTGTGACCCTAGCCTCATTGATGCTACTCACAGAGACGTGGATGTGCTGTTACTGCTTTT  
TAACCTCTGCCTACTACGTGGCCTATTATGATGATGAAGTTGATAAAGTAAACCAGTATCAACGACTAAGTCTAGA  
AAACCTGGAAAAAATTGAAATAGGCCCTGAACCCACTCTTTTTGGTAAGCCAAAAGTTCTCCTGCATGCGACTGCA  
CTACAGATACAAAGAAGCGAGTGGCTATTTCCACACATTGCGAGCTGTAATGCGTAATCCTGAAGAGGATGGAAA  
AGATACCCTTCAGTGCATTGCAGAGATGCTGCAGATCACCAAGCAAGCCATGGGATCGGATTTACCCATAATTGA  
GAAGAACTTGAGAGGAAGAGCAGTAAACCTCACGAAGACATCATTGGTATCAGGTCTCAAAACCAAGGTTCTTT  
GGCCCAGGGAAAGAATTTTTAATGAGCAAATTTTCTCTCTAAATCAAAAAGTGAAGCAGACCAATCCAATGT  
AAATATTGGCAACCTCCGAAAGCTAGGAACTTTACCAAACCTGAAATGAAAGTTAACTTTCTAAAACCAAACCTT  
AAAAGTAAATCTTTGGAAATCAGATAGTAGTCTTGAAACTATGGAAAACACAGGAGTGATGGATAAGGTTTCAGGC  
AGAGTCTGATGGGGACATGTCTTCAGATAATGACTCATACCCTCTGATGAATTCCTTACAAATTCTAAGTCTGA  
TGAAGACAGGCAGCTAGCTAACTCATTAGAGAGTGATAGGGCCAATAGATTACGTTCTTCTTAGTTGTGGTATTAT  
TGCTCAGCGCCTCGATTGGGCGAGTCGGTCCCAGTCTCTTAGCAGCACAGATAGTAGCGTTCATGCTCCTTCAGA  
GATTACTGTTGCTCATGGGAGTGGGCTTGGAAGAGGCCAGGAGTCTCCTTTGAAGAAAAGTCTTCTGCTGGCGA  
CGTACACATATTGACTGGCTTTGCCAAGCCTATGGATATTTACTGCCACAGATTTGTGCAAGATGCACAGAACAA  
AGTGACCCACCTATCAGAGACCAGATCTGTGTCTCAGCAGGCTAGTCAGGAAAGAAATCAATGACCAATCAAGT  
TTCAAATGAAACCCAATCAGAATCAACAGAACAGACACCTTCTCGGCCATCGCAATTAGATGTCTCTCTTTCTGC  
AACAGGCCACAGTTTTTTGTGAGTTGAGCCAGCGCATTGAGTTGCATCTCAAAAAACCCCCACCTCCGCTTCCAG  
CATGCTTGAACCTTGAGACAGGGCTTCATGTAACCTCTTCTCTTCAGAGAGCAGTAGCAGCAGAGCAGTCTCTCC  
CTTTGCCAAGATTGCAAGTTCCATGGTCCAGGTTGCTAGTATTACCCAAGCTGGATTAACCCATGGGATAAACTT  
TGCAGTGTCAAAGTTTCAAGAGTCTCCAGAACCTGAAATCATTAAATCAAGTCCAGCAAAATGAACTTAAAAA  
GATGTTTATACAATGCCAGACACGGATAATTCAGATTTAGCTTTTAGCCATAAGAATCCTTCCATGGCTTTTATT

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**FIGURE 440B**

TAAAAATATGAAATTTTCACCTCTTGGGGTATTTTAATTGTACTGTCTGAACCCAGGGATCACAAATTCTGTTCA  
TTGGAAAGGGTTTTAAACGGAGTCGGAACCTGAGTAGATTTCCAAATTTTACAGCCAGGACTACAGAAGTGCATC  
ATTCTAGAAATGTGTAGACCTGAGTAGCTTATACACTACAGAGCACTTTGCTTATTTGAAAGTAATTCAGCAACAG  
GTCACCTTTGGGATATAACCTGAACCTTTTTTTGGAGTGGGGTGGGTAGACTACAGTAGACACAAGGGCTGGACAT  
GCAGATGCTTAGGGGATTAGCGTTTTTTCATAATTTGTTCTGTTTGTTCAGTTCATTCTGTGTGTTCTTACCTCTA  
CAAAGTAAATTACACATTTAGTTTTTAGTGACTTTAACATGTTACTGAAGCATTGAAATATAAAGCTATTTTAGT  
TTTGATGGCTTAACCTGTTCCCTGAGGAGTTGAGGGTTATTGACACTAGAGAAATGAATTCTCATTTGATCCTAAT  
TTTCCCCGTATTCTACTTGAACACATTAAAAATAC TCTGCTGCCTATACAATGTAAACCTAGGAGCATTAAAGACT  
TGTCACACAGTAAACCTGATACATCAGAGGTGAATACCAGCACCTATTAGGTTTCATTTTGCTGTTTTCAGGAAT  
GTAAGAACACCCATATTGGCTACTGGAATTTCTAGCAGTCAGTCAGGTTTTAATTTATTCCAGGAGGGGCATCCT  
CGACATCTTATGTAGATGATCCACAACCTCAAATTTAGTCTGGGCCTAGTGCAGTGGCTCACACCTATAATCCC  
AACACTTTGGGAGGCCAGGAGTTTTGAGACCAGCCTGGGAAACATCTGCCTCTACAAAAAAATACAAAAATTAGC  
TGGGCATAGTGGTGCATGCCTGTGTTTCTAGCTACGCAGGAGGATTGCTTGAGCCCATGAGATTGAGGCTGCAGT  
GAGCTGTGATCGTGCCACTGACCTCCAGCCTGGGGGACAGAGCAAGACCGTGTCTCAAAAAACAATTTAGTCTGAA  
ACACAATTGTGCTGAATCTGTCTGACTATAACTCTGACCACACAGAACCAGGGCTGCCCCCTGTAATCCCCACAGT  
AAGAAAGTTGTATGGCATATTCCAACAAGTATTGGTTTCGTCTGGTGTCTTTAGAGCTTTACTCTGTTGAAGTGAC  
TGATTCTCAACTGAACATTATGTCGTTACTTTGATAAGCATTCCACTTTTGTATTTATTAGTGCTATCTTTTTT  
TTTACGTGTTAAATCTTGTGATTATTAAATAAAGTACCATTGTAATTT



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**FIGURE 441**

MELFQAKDHYILQQGERALWCSRRDGGQLRPATDLLLAWNPICLGLVEGVIGKIQ LHSDLPWWLILIRQKALVG  
KLPGDHEVCKVT KIAVLSLSEMEPDLELELCCKHHFGINKPEKIIPSPDDSKFLLKTFTHIKSNVSAPNKKKVK  
ESKEKEKLERRLLEELLKMFMDSESFYYSLT YDLTNSVQRQSTGERDGRPLWQKVDDRRFFWNKYMIQDLTEIGTP  
DVDFWIIPMIQGFVQIEELVVNYTESSDEKSSPETPPQESTCVDDIHPRFLVALISRRSRHRAGMRYKRRGVDK  
NGNVANYVETEQLIHVHNHTLSFVQTRGSVPVFW SQVGYRYNPRPRLD RSEKETVAYFCAHFEEQLNIYKKQV I I  
NLVDQAGREKII GDAYLKQVLLFNNSHLTYVSFDFHEHCRGMKFENVQTLTDAIYDIILDMKWCWVDEAGVICKQ  
EGIFRVN CMDCLDR TNVVQAAIARVVMEQQLKKLGVMPP EQPLPVKCNRIYQIMWANNGDSISRQYAGTAALKGD  
FTRTGERKLAGVMKDG VNSANRYYLNRFKDAYRQAVIDL MQGIPVTEDLYSIFTKEKEHEALHKENQRSHQELIS  
QLLQSYMKLLLPDDEKFHGGWALIDCPSLIDATHRDVDVLLLLSNSAYYVAYDDEVDKVNQYQRLSLENLEKI  
EIGPEPTLFGKPKFSCMRLHYRYKEASGYFHTLRVMRNPEEDGKDTLQCIAEMLQITKQAMGSDLPIIEKKLER  
KSSKPHEDIIGIRSQNQGSLAQGNFLMSKFSSLNQKVQTKSNV NIGNLRKLG NFTKPEMKVNFLKPNLKVNLW  
KSDSSLETMENTGVMDKVQAESDGMSSDND SYHSDEFLTNSKSD EDRQLANSLESVGPIDYVLPSCGIIASAPR  
LGSRSQSLSSDSSVHAPSEITVAHGSGLGKGQESPLKKSPSAGDVHILTGF AKPMDIYCHRFVQDAQNKVTHLS  
ETRSVSQQASQERNQMTNQVSNETQSESTEQTSPSRPSQLDVSL SATGPQFLSVEPAHSVASQKTPTSASSMLELE  
TGLHVTPSPSESSSSRAVSPFAKIRSSMVQVASITQAGLTHGINFAVSKVQKSPPEPEIINQVQQNELKKMFIQC  
QTRIIQI

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**FIGURE 442A**

GT TGGCCCCCGTTACTTTTCTCTGGGAAATATGGCGCACGCTGGGAGAACAGGGTACGATAACCGGGAGATAGT  
GATGAAGTACATCCATTATAAGCTGTGCGAGAGGGGCTACGAGTGGGATGCGGGAGATGTGGGCGCCGCGCCCC  
GGGGGCCGCCCCCGCGCCGGGCATCTTCTCCTCGCAGCCCCGGGCACACGCCCCATACAGCCGCATCCCGGGACCC  
GGTCGCCAGGACCTCGCCGCTGCAGACCCCCGGCTGCCCCGGCGCCGCCGCGGGGCTGCGCTCAGCCCGGTGCC  
ACCTGTGGTCCACCTGACCCTCCGCCAGGCCGGCGACGACTTCTCCCGCCGCTACCGCCGCGACTTCGCCGAGAT  
GTCCAGGCAGCTGCACCTGACGCCCTTACC CGCGGGGACGCTTTGCCACGGTGGTGGAGGAGCTCTTCAGGGA  
CGGGGTGAAGTGGGGGAGGATTGTGGCCTTCTTTAGATTGGTGGGGTTCATGTGTGTGGAGAGCGTCAACCGGGA  
GATGTCGCCCTGGTGGACAACATCGCCCTGTGGATGACTGAGTACCTGAACCGGCACCTGCACACCTGGATCCA  
GGATAACGGAGGCTGGGATGCCTTTGTGGAAGTGTACGGCCCCAGCATGCGGCCTCTGTTTGATTTCTCCTGGCT  
GTCTCTGAAGACTCTGCTCAGTTTGGCCCTGGTGGGAGCTTGCATCACCTGGGTGCCTATCTGGGCCACAAGTG  
AAGTCAACATGCCTGCCCAAACAAATATGCAAAAGGTTCACTAAAGCAGTAGAAATAATATGCATTGTCTAGTGA  
TGTTCCATGAAACAAAGCTGCAGGCTGTTTAAAGAAAAATAACACACATATAAACATCACACACACAGACAGACA  
CACACACACACAACAATTAACAGTCTTCAGGCAAAACGTGCAATCAGCTATTTACTGCCAAAGGGAAATATCATT  
TATTTTTTACATTATTAAGAAAAAAGATTTATTTATTTAAGACAGTCCCATCAAACTCCTGTCTTTGGAAATC  
CGACCACTAATTGCCAAGCACCGCTTCGTGTGGCTCCACCTGGATGTTCTGTGCCTGTAAACATAGATTCTGCTTT  
CCATGTTGTTGGCCGGATCACCATCTGAAGAGCAGACGGATGGAAAAAGGACCTGATCATTGGGGGAAGCTGGCTT  
TCTGGCTGCTGGAGGCTGGGGAGAAGGTGTTTCACTTGCATTTCTTGGCCCTGGGGGCTGTGATATTAACAG  
AGGGAGGGTTTCTGTGGGGGGAAGTCCATGCCTCCCTGGCCTGAAGAAGAGACTCTTGCATATGACTCACATGA  
TGCATACCTGGTGGGAGGAAAAGAGTTGGGAAGTTCAGATGGACCTAGTACCCACTGAGATTTCCACGCCGAAGG  
ACAGCGATGGGAAAAATGCCCTTAAATCATAGGAAAGTATTTTTTAAAGCTACCAATTGTGCCGAGAAAAGCATT  
TTAGCAATTTATACAATATCATCCAGTACCTTAAGCCCTGATTGTGTATATTCATATATTTTGGATACGCACCCC  
CCAAC TCCCAATACTGGCTCTGTCTGAGTAAGAAACAGAATCCTCTGGAAGTTGAGGAAGTGAACATTTCCGGTGA  
CTTCCGCATCAGGAAGGCTAGAGTTACCCAGAGCATCAGGCCGCCACAAGTGCCTGCTTTTAGGAGACCGAAGTC  
CGCAGAACCTGCCTGTGTCCAGCTTGGAGGCTGGTCTTGAAGCTGATGGAGCTCAGAATTCACCTGTCAAGAAAGA  
GGATGATCAACAGGGCAGTGTGGTCTCCGAATGCTGGAAGCTGATGGAGCTCAGAATTCACCTGTCAAGAAAGA  
GCAGTAGAGGGGTGTGGCTGGGCCTGTACCCCTGGGGCCCTCCAGGTAGGCCCGTTTTACGCTGGAGCATGGGAG  
CCACGACCCTTCTTAAGACATGTATCACTGTAGAGGGAAGGAACAGAGGCCCTGGGCCCTTCTATCAGAAGGAC  
ATGGTGAAGGCTGGGAACGTGAGGAGAGGCAATGGCCACGGCCCATTTTGGCTGTAGCACATGGCACGTTGGCTG  
TGTGGCCTTGGCCACCTGTGAGTTTAAAGCAAGGCTTTAAATGACTTTGGAGAGGGTCACAAATCCTAAAAGAA  
GCATTGAAGTGAGGTGTATGGATTAATTGACCCCTGTCTATGGAATTACATGTAAACATTATCTTGTCACTGT  
AGTTTGGTTTTATTTGAAAACCTGACAAAAAAAAGTTCCAGGTGTGGAATATGGGGGTATCTGTACATCCTGG  
GGCATTAAAAAAAATCAATGGTGGGGAAGTATAAAGAAGTAACAAAAGAAGTGACATCTTCAGCAAATAAACT  
AGGAAATTTTTTTTCTTCCAGTTTAGAATCAGCCTTGAACATTGATGGAATAACTCTGTGGCATTATTGCATT  
ATATACCATTATCTGTATTAACCTTGGAAATGTACTCTGTTCAATGTTTAAATGCTGTGGTTGATATTTGAAAGC  
TGCTTTAAAAAATACATGCATCTCAGCGTTTTTTTGTTTTTAATTGTATTTAGTTATGGCCTATACACTATTTG  
TGAGCAAAGGTGATCGTTTTCTGTTTGAGATTTTTATCTCTTGATTCTTCAAAGCATTCTGAGAAGGTGAGATA  
AGCCCTGAGTCTCAGCTACCTAAGAAAAACCTGGATGTCACTGGCCACTGAGGAGCTTTGTTTCAACCAAGTCAT  
GTGCATTTCCACGTCAACAGAATTGTTTTATTGTGACAGTTATATCTGTTGTCCCTTTGACCTTGTTTCTTGAAGG  
TTTCTCTGCTCCCTGGGCAATTCCGCATTTAATTCATGGTATTTCAGGATTACATGCATGTTTGGTTAAACCCATGA  
GATTCAATTCAGTTAAAAATCCAGATGGCAAATGACCAGCAGATTCAAATCTATGGTGGTTTGACCTTTAGAGAGT  
TGCTTTACGTGGCCTGTTTCAACACAGACCCACCCAGAGCCCTCCTGCCCTCCTTCCGCGGGGGCTTTCTCATGG  
CTGTCTTTCAGGGTCTTCTGAAATGCAGTGGTGTACGCTCCACCAAGAAAGCAGGAAACCTGTGGTATGAAG  
CCAGACCTCCCCGGCGGGCCTCAGGGAACAGAATGATCAGACCTTTGAATGATTCTAATTTTTAAGCAAAATATT  
ATTTTATGAAAGGTTTACATTGTCAAAGTGATGAATATGGAATATCCAATCCTGTGCTGCTATCCTGCCAAAATC  
ATTTTAAATGGAGTCAGTTTGCAGTATGCTCCACGTGGTAAGATCCTCCAAGCTGCTTTAGAAGTAACAATGAAGA  
ACGTGGACGCTTTTAAATATAAAGCCTGTTTTGTCTTCTGTTGTTGTTCAAACGGGATTACAGAGTATTTGAAAA  
ATGTATATATATTAAGAGGTACGGGGGCTAATTGCTGGCTGGCTGCCTTTTGCTGTGGGGTTTTGTTACCTGGT  
TTTAATAACAGTAAATGTGCCAGCCTCTTGGCCCCAGAACTGTACAGTATTGTGGCTGCACTTGCTCTAAGAGT

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**FIGURE 442B**

AGTTGATGTTGCATTTTCCTTATTGTTAAAAACATGTTAGAAGCAATGAATGTATATAAAAGCCTCAACTAGTCA  
TTTTTTTCTCCTCTTCTTTTTTTTCATTATATCTAATTATTTTGCAGTTGGGCAACAGAGAACCATCCCTATTTT  
GTATTGAAGAGGGATTACATCTGCATCTTAACGTCTCTTTATGAATGAAAAACAGTCTCTGTATGTACTCCT  
CTTTACACTGGCCAGGGTCAGAGTTAAATAGAGTATATGCACCTTCCAAATTGGGGACAAGGGCTCTAAAAAAG  
CCCCAAAAGGAGAAGAACATCTGAGAACCTCCTCGGCCCTCCAGTCCCTCGCTGCACAAATACTCCGCAAGAGA  
GGCCAGAATGACAGCTGACAGGGTCTATGGCCATCGGGTCGTCTCCGAAGATTGGCAGGGGCAGAAAACCTCTGG  
CAGGCTTAAGATTGGAATAAAGTCACAGAATCAAGGAAGCACCTCAATTTAGTTCAAACAAGACGCCAACATTC  
TCTCCACAGCTCACTTACCTCTCTGTGTTTCTGATGTGGCTTCCATTTATATGTGATCTTTGTTTTATTAGTAAA  
TGCTTATCATCTAAAGATGTAGCTCTGGCCAGTGGGAAAAATTAGGAAGTGATTATAAATCGAGAGGAGTTATA  
ATAATCAAGATTAAATGTAAATAATCAGGGCAATCCAACACATGTCTAGCTTTCACCTCCAGGATCTATTGAGT  
GAACAGAATTGCAATAGTCTCTATTTGTAATTGAACCTATCCTAAAAACAAATAGTTTATAAATGTGAACCTAAA  
CTCTAATTAATTCCAACGTACTTTTAAGGCAGTGGCTGTTTTTAGACTTTCTTATCACTTATAGTTAGTAATGT  
ACACCTACTCTATCAGAGAAAAACAGGAAAGGCTCGAAATACAAGCCATTCTAAGGAAATTAGGGAGTCAGTTGA  
AATTCTATTCTGATCTTATTCTGTGGTGTCTTTTGCAGCCAGACAAATGTGGTTACACACTTTTTAAGAAATAC  
AATTCTACATTGTCAAGCTTATGAAGGTTCCAATCAGATCTTTATTGTTATTCAATTTGGATCTTTCAGGGATTT  
TTTTTTTAAATTATTATGGGACAAAGGACATTTGTTGGAGGGGTGGGAGGGAGGAACAATTTTTAAATATAAAAC  
ATTCCCAAGTTTGGATCAGGGAGTTGGAAGTTTTCAGAATAACCAGAACTAAGGGTATGAAGGACCTGTATTGGG  
GTCGATGTGATGCCTCTGCGAAGAACCCTGTGTGACAAATGAGAAACATTTTGAAGTTTGTGGTACGACCTTTAG  
ATTCCAGAGACATCAGCATGGCTCAAAGTGCAGCTCCGTTTGGCAGTGCAATGGTATAAAATTCAAGCTGGATAT  
GTCTAATGGGTATTTAAACAATAAATGTGCAGTTTAACTAACAGGATATTTAATGACAACCTTCTGGTTGGTAG  
GGACATCTGTTTCTAAATGTTTATTATGTACAATACAGAAAAAATTTTATAAAATTAAGCAATGTGAACTGAA  
TTGGAGAGTGATAATACAAGTCCCTTATGCTTACCCAGTGAATCATTCTGTTCCATGTCTTTGGACAACCATGAC  
CTTGGACAATCATGAAATATGCATCTCACTGGATGCAAAGAAAATCAGATGGAGCATGAATGGTACTGTACCGGT  
TCATCTGGACTGCCCCAGAAAAATAACTTCAAGCAAACATCCTATCAACAACAAGGTTGTTCTGCATACCAAGCT  
GAGCACAGAAGATGGGAACACTGGTGGAGGATGGAAAGGCTCGCTCAATCAAGAAAATCTGAGACTATTAATAA  
ATAAGACTGTAGTGTAGATACTGAGTAAATCCATGCACCTAAACCTTTTGGAAAATCTGCCGTGGGCCCTCCAGA  
TAGCTCATTTTCATTAAGTTTTTCCCTCCAAGGTAGAATTTGCAAGAGTGACAGTGGATTGCATTTCTTTTGGGA  
AGCTTTCTTTTGGTGGTTTTGTTTATTATACCTTCTTAAGTTTTCAACCAAGGTTTGCTTTTGTGTTTGAAGTTACT  
GGGGTTATTTTTGTTTTAAATAAAAAATAAGTGTACAATAAGTGTGTTTGTATTGAAAGCTTTTGTATCAAGATT  
TTCATACTTTTACCTTCCATGGCTCTTTTTAAGATTGATACTTTTAAAGAGGTGGCTGATATTCTGCAACACTGTA  
CACATAAAAAATACGGTAAGGATACTTTACATGGTTAAGGTAAAGTAAGTCTCCAGTTGGCCACCATTAGCTATA  
ATGGCACTTTGTTTGTGTTGTTGGAAAAAGTCACATTGCCATTAAACTTTCCTTGTCTGTCTAGTTAATATTGTG  
AAGAAAAATAAAGTACAGTGTGAGATACTG

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**FIGURE 443**

MAHAGRTGYDNREIVMKYIHYKLSQRGYEWDA GDVGAAPPGAAPAPGIFSSQPGHTPHPAASRDPVARTSPLQTP  
AAPGAAAGPALSPVPPVVHLALRQAGDDFSRRYRGDFAEMSSQLHLTPFTARGRFATVVEELFRDGVNWGRIVAF  
FEFGGVMCVESVNREMSPLVDNIALWMTEYLNRLHHTWIQDNGGWVGASGDVSLG

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**FIGURE 444A**

GGAACAGCTTGTCCACCCGCCGGCCGGACCAGAAGCCTTTGGGTCTGAAGTGTCTGTGAGACCTCACAGAAGAGC  
ACCCCTGGGCTCCACTTACCTGCCCCCTGCTCCTTCAGGGATGGAGGCAATGGCGGCCAGCACTTCCCTGCCTGA  
CCCTGGAGACTTTGACCGGAACGTGCCCCGGATCTGTGGGGTGTGTGGAGACCGAGCCACTGGCTTTCACTTCAA  
TGCTATGACCTGTGAAGGCTGCAAAGGCTTCTTCAGGCGAAGCATGAAGCGGAAGGCACTATTACCTGCCCCCTT  
CAACGGGGACTGCCGCATCACCAAGGACAACCGACGCCACTGCCAGGCCTGCCGGCTCAAACGCTGTGTGGACAT  
CGGCATGATGAAGGAGTTCATTCTGACAGATGAGGAAGTGCAGAGGAAGCGGGAGATGATCCTGAAGCGGAAGGA  
GGAGGAGGCCTTGAAGGACAGTCTGCGGCCCAAGCTGTCTGAGGAGCAGCAGCGCATCATTGCCATACTGCTGGA  
CGCCCACCATAAGACCTACGACCCACCTACTCCGACTTCTGCCAGTTCCGGCCTCCAGTTCGTGTGAATGATGG  
TGGAGGGAGCCATCCTTCCAGGCCCAACTCCAGACACACTCCAGCTTCTCTGGGGACTCCTCCTCCTCCTGCTC  
AGATCACTGTATCACCTCTTCAGACATGATGGACTCGTCCAGCTTCTCCAATCTGGATCTGAGTGAAGAAGATTC  
AGATGACCCCTTCTGTGACCCTAGAGCTGTCCAGCTCTCCATGCTGCCCCACCTGGCTGACCTGGTCAGTTACAG  
CATCCAAAAGGTCATTGGCTTTGCTAAGATGATACCAGGATTCAGAGACCTCACCTCTGAGGACCAGATCGTACT  
GCTGAAGTCAAGTGCCATTGAGGTCATCATGTTGCGCTCCAATGAGTCCTTCACCATGGACGACATGTCCTGGAC  
CTGTGGCAACCAAGACTACAAGTACCGCGTCAGTGACGTGACCAAAGCCGGACACAGCCTGGAGCTGATTGAGCC  
CCTCATCAAGTTCCAGGTGGGACTGAAGAAGCTGAAGTGCATGAGGAGGAGCATGTCCTGCTCATGGCCATCTG  
CATCGTCTCCCCAGATCGTCTGGGGTGCAGGACGCCGCGCTGATTGAGGCCATCCAGGACCGCCTGTCCAACAC  
ACTGCAGACGTACATCCGCTGCCGCCACCCGCCCGGGCAGCCACCTGCTCTATGCCAAGATGATCCAGAAGCT  
AGCCGACCTGCGCAGCCTCAATGAGGAGCACTCCAAGCAGTACCGCTGCCTCTCCTTCCAGCCTGAGTGCAGCAT  
GAAGCTAACGCCCTTGTGCTCGAAGTGTGGCAATGAGATCTCTGACTAGGACAGCCTGTGCGGTGCCTGGG  
TGGGGCTGCTCCTCCAGGGCCACGTGCCAGGCCCGGGGCTGGCGGCTACTCAGCAGCCCTCCTCACCCTGCTGGG  
GTTTCAGCCCTCCTCTGCCACCTCCCCCTATCCACCCAGCCCATTTCTCTCTCCTGTCCAACCTAACCCCTTTCTG  
CGGGCTTTTCCCCGGTCCCTTGAGACCTCAGCCATGAGGAGTTGCTGTTTGTGTTGACAAAGAAACCAAGTGGGG  
GCAGAGGGCAGAGGCTGGAGGCAGGCCTTGCCAGAGATGCCTCCACCGCTGCCTAAGTGGCTGCTGACTGATGT  
TGAGGGAACAGACAGGAGAAATGCATCCATTCTCAGGGACAGAGACACCTGCACCTCCCCCACTGCAGGCCCC  
GCTTGTCCAGCGCCTAGTGGGGTCTCCCTCTCCTGCCTTACTCAGATAAATAATCGGCCACAGCTCCCACCCC  
ACCCCTTTCAGTGCCACCAACATCCCATTTGCCCTGGTTATATTTCTACGGGCAGTAGCTGTGGTGAGGTGGGT  
TTCTTCCCATCACTGGAGCACCAGGCACGAACCCACCTGCTGAGAGACCAAGGAGGAAAAACAGACAAAAACAG  
CCTCACAGAAGAATATGACAGCTGTCCCTGTACCAAGCTCACAGTTCTCGCCCTGGGTCTAAGGGGTTGGTTG  
AGGTGGAAGCCCTCCTTCCACGGATCCATGTAGCAGGACTGAATTGTCCCCAGTTTGCAGAAAAGCACCTGCCGA  
CCTCGTCTCCCCCTGCCAGTGCCTTACCTCCTGCCAGGAGAGCCAGCCCTCCCTGTCTCCTCGGATCACCGA  
GAGTAGCCGAGAGCCTGCTCCCCACCCCTCCCCAGGGGAGAGGTCTGGAGAAGCAGTGAGCCGCATCTTCTC  
CATCTGGCAGGGTGGGATGGAGGAGAAGAATTTTCAGACCCAGCGGCTGAGTCATGATCTCCCTGCCGCCTCAA  
TGTGTTGCAAGGCCGCTGTTACCCACAGGGCTAAGAGCTAGGCTGCCGCACCCAGAGTGTGGGAAGGGAGAGC  
GGGGCAGTCTCGGGTGGCTAGTCAGAGAGAGTGTGGGGGTTCCGTGATGTAGGGTAAGGTGCCTTCTTATTCT  
CACTCCACCACCCAAAAGTCAAAAGGTGCCTGTGAGGCAGGGGCGGAGTGATACTTCAAGTGCATGCTCTCT  
GCAGGTGAGCCAGCCAGCTGGTGGGAAGCGTCTGTCCGTTTACTCCAAGGTGGGTCTTTGTGAGAGTGAGCT  
GTAGGTGTGCGGGACCGGTACAGAAAGGCGTTCTTCGAGGTGGATCACAGAGGCTTCTTCAGATCAATGCTTGAG  
TTTGGAATCGGCCGCAATTCCTGAGTCACCAGGAATGTTAAAGTCAGTGGGAACGTGACTGCCCCAACTCCTGGA  
AGCTGTGTCTTGCACCTGCATCCGTAGTTCCCTGAAAACCCAGAGAGGAATCAGACTTCACACTGCAAGAGCCT  
TGGTGTCCACCTGGCCCCATGTCTCTCAGAATTCTTCAGGTGGAAAAACATCTGAAAGCCACGTTCCCTTACTGCA  
GAATAGCATATATATCGCTTAATCTTAAATTTATTAGATATGAGTTGTTTTCAGACTCAGACTCCATTGTATTA  
TAGTCTAATATACAGGGTAGCAGGTACCACTGATTGGAGATATTTATGGGGGAGAACTTACATTGTGAACTT  
CTGTACATTAATTATTATTGCTGTTGTTATTTTACAAGGTCTAGGGAGAGACCCTTGTGTTGATTTAGCTGCAG  
AACTGTATTGGTCCAGCTTGCTCTTCAGTGGGAGAAAAACACTTGTAAGTTGCTAAACGAGTCAATCCCTCATT  
CAGGAAAACCTGACAGAGGAGGGCGTGACTACCCAAGCCATATATACTAGCTAGAAGTGGGCCAGGACAGGCCG  
GGCGCGGTGGCTCACGCCTGTAATCCCAGCAGTTTGGGAGGTCGAGGTAGGTGGATCACCTGAGGTGCGGAGTTC  
GAGACCAACCTGACCAACATGGAGAAACCTGTCTCTATTAATAACAAAAAATAAAAAAATAAAAAAATAAGCCG  
GGCATGGTGGCGCAAGCCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGAAGAATTGAACCCAGGAGGTGGAGG

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**FIGURE 444B**

TTGCAGTGAGCTGAGATCGTGCCGTTACTCTCCAACCTGGACAACAAGAGCGAAACTCCGTCTTAGAAGTGGACC  
AGGACAGGACCAGATTTTGGAGTCATGGTCCGGTGTCCTTTTCACTACACCATGTTTGAGCTCAGACCCCCACTC  
TCATTCCCCAGGTGGCTGACCCAGTCCCTGGGGGAAGCCCTGGATTTCAGAAAGAGCCAAGTCTGGATCTGGGAC  
CCTTTTCCTTCCCTGGCTTGTA ACTCCACCAAGCCCATCAGAAGGAGAAGGAAGGAGACTCACCTCTGCCTC  
AATGTGAATCAGACCCTACCCACACGATGTGCCCTGGCTGCTGGGCTCTCCACCTCAGGCCTTGGATAATGCT  
GTTGCCTCATCTATAACATGCATTTGTCTTTGTAATGTCACCACCTTCCCAGCTCTCCCTCTGGCCCTGCTTCTT  
CGGGGA ACTCCTGAAATATCAGTTACTCAGCCCTGGGCCCCACCACCTAGGCCACTCCTCCAAAGGAAGTCTAGG  
AGCTGGGAGGAAAAGAAAAGAGGGGAAAATGAGTTTATG GGGCTGAACGGGGAGAAAAGGTCATCATCGATTCT  
TACTTTAGAATGAGAGTGTGAAATAGACATTTGTAAATGTAAA ACTTTTAAGGTATATCATTATAACTGAAGGAG  
AAGGTGCCCCAAAATGCAAGATTTTCCACAAGATTCCCAGAGACAGGAAAATCCTCTGGCTGGCTAACTGGAAGC  
ATGTAGGAGAATCCAAGCGAGGTCAACAGAGAAGGCAGGAATGTGTGGCAGATTTAGTGAAAGCTAGAGATATGG  
CAGCGAAAGGATGTAAACAGTGCCTGCTGAATGATTTCCAAAGAGAAAAAAAGTTTGCCAGAAGTTTGTCAAGTC  
AACCAATGTAGAAAGCTTTGCTTATGGTAATAAAAATGGCTCATACTTATATAGCACTTACTTTGTTTGCAAGTA  
CTGCTGTAAATAAATGCTTTATGCAAACC

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**FIGURE 445**

MEAMAASTSLPDPGDFDRNVPRICGVCGDRATGFHFNAMTCEGCKGFFRRSMKRKALFTCPFNGDCRITKDNRRH  
CQACRLKRCVDIGMMKEFILTDEEVQRKREMILKRKEEEALKDSLRLKSEEQQRIIAILLDAHKKTYDPTYSDF  
CQFRPPVRVNDGGGSHPSRPNSRHTPSFSGDSSSSCSDHCITSSDMMDSFSNLDLSEEDSDDPSVTLELSQLS  
MLPHLADLVSYSIQKVIGFAKMIPGFRDLTSEDQIVLLKSSAIEVIMLRSNESFTMDDMSWTCGNQDYKYRVSDV  
TKAGHSLELIEPLIKFQVGLKKLNLHEEEHVLLMAICIVSPDRPGVQDAALIEAIQDRLSNTLQTYIRCRHPPPG  
SHLLYAKMIQKLADLRSLNEEHSKQYRCLSFQPECSMKLTPLVLEVFGNEIS

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**FIGURE 446A**

ATACAATAGTGCTCCGCGCCGCCTCAGCCGCCGCCGCCCAACCGCCTGCCAGCGCTGAGGCCTGACGGGCC  
GGGCGGACGAGGGCCGAGGGCGGGAGCTGAGGCGCGGGGGCGGCCCGGCGGGGGCGGGGGCGAGGAGGGGAT  
TAAGGGGCAGGTGCGAGGGAGGGAAGAGAAGAAAGCGAGCGTTAGGGGGCGGTTACCACTCCGACCGGACTCA  
CCCGGCACATTGCCGGGCCGCGCGCTGGAGCCGGGCAGGAGCCGCGAGCCAGCTGCGCGAAGGATGCTCCAGGAT  
GAAACGCCATAGGCCTGTCAGCAGCAGTGACAGTTCAGACGAAAGTCCTTCCACTTCCTTTACTTCTGGCTCAAT  
GTATAGGATCAAGTCAAAAATTCCAAATGAACACAAGAAACCTGCTGAGGTATTCCGGAAGGACCTCATCAGTGC  
CATGAACTTCCAGATTCTCACCACATTAATCCTGATAGCTATTACCTCTTTGCTGATACATGGAAGGAAGAATG  
GGAAAAGGGAGTCCAGGTACCAGCCAGTCCAGACACCGTTCCACAGCCTTCTCTCAGGATTATAGCTGAGAAGGT  
AAAGGACGTTCTGTTTATCCGACCCCGGAAGTATAATCACTGCTCCAGCCCAGACACCACAGAGCCTGGCTACAT  
CAACATCATGGAGTTGGCAGCATCTGTTTGCCGCTATGACCTAGATGACATGGACATCTTCTGGCTTCAGGAACT  
CAATGAAGACCTTGCGAAATGGGTGTGGGCCAGTTGATGAGAATCTTATGGAAGACAGTAGAAGTCCTGGA  
ACGCCATTGCCATGAAAATATGAACCATGCTATTGAGACAGAGGAAGGGCTAGGCATAGAGTATGATGAAGATGT  
GATCTGTGATGTGTGCCGGTCTCCAGACAGTGAAGAAGGGAATGATATGGTGTCTGTGATAAGTGTAACGCTCTG  
TGTGCATCAGGCCTGCTATGGCATCCTCAAGGTCCCAGAAGGCAGCTGGCTGTGTGCTCCTGTGTCTGGGCAT  
TTATCCGCAATGTGTGTTATGTCCAAAGAAAGGTGGAGCCCTGAAGACCACCAAGACAGGGACTAAATGGGCTCA  
TGTCAGCTGTGCCCTGTGGATCCCAGAGGTCAGCATTTGCTTGCTCTGAGAGGATGGAACCGATCACGAAGATCTC  
CCACATCCCACCCAGTCGGTGGGCCTTAGTCTGCAACTTGTGCAAGTTGAAGACGGGGCTTGTATTCAAGTGCTC  
TATAAAAAGCTGCATCACTGCCTTCCACGTCACTGTGCTTTGAGCACGGCCTAGAGATGAAGACCATCCTAGA  
TGAGGGAGACGAAGTGAAGTTCAAGTCATATTGCCAAGCATAGCCAAAACAGGCAGAACTTGGAGAAGCTGA  
GTACCCACCACAGGGCTAAAGAGCAGAGCCAGGCCAAAAGTGAGAAAACAGCCTGCGGGCACAGAAGCTTCG  
GGAGCTGGAGGAGGAGTTCTATTCTTGGTACGAGTGGAAGATGTGGCCGACAGCTGGGTATGCCCACGCTAGC  
TGTGGACTTTATCTATAACTACTGAAACTGAAGCGGAAAAGTAACTTCAATAAGCCATTATTTCTCTCAAAGGA  
GGATGAAGAAAATGGGCTGGTGCAGCCAAAAGAGGAAAGCATTCACTCGAATGAGAATGTTTATGCATCTACG  
CCAGGACCTGGAGAGGGTCCGAAATCTGTGCTATATGATAAGCAGACGAGAGAAGCTGAAGCTGTACACAACAA  
AATACAGGAACAGATCTTCGGTTTGCAAGTCCAGCTTCTTAACCAAGAAATTGATGCAGGGCTTCCTTTGACAAA  
TGCATTGAAAACACTCACTGTTTTACCCACCACCAAGAATTACCTTGAAGTTAAAAATGCCCAAATCAACCCAGA  
AGACCACAGAAACAGCTCCACAGAAACCGATCAGCAGCCCCACTCTCTGACAGCAGCTCATCTGTTACAGTAT  
AAGGAACATGCAGGTGCCTCAGGAGTCACTAGAAAATGAGAACAAAATCGTATCCGAGATACCCACTAGAGAGCAA  
GAATAACCGTTTGCTGGCCAGTCTCAGCCATTCTAGGAGTGAAGCAAAGGAGTCCAGTCTGCTTGGAGAACCCC  
GTCTCGGAGTGCTATCATGGGCAGTCACTGGGAAAGCCTCTGGTCCCTCAGGCTGCCCTCCATGGACAGTCTTC  
CATTGGGAATGGGAAAAGTCAGCCTAACTCCAAGTTTGCCAAATCCAATGGCCTGGAGGGCAGCTGGTCTGGGAA  
TGTCACCCAAAAGACAGCTCGAGTGAGATGTTCTGTGACCAGGAGCCTGTGTTACAGCCCCACTTGGTCAGTCA  
GGCAGCTTTAGAAAATCCACTGTAGAACACTTTAGTAGGTCCCTTTAAAGAGACCACCAATAGGTGGGTGAAGAA  
CACAGAGGACCTCCAGTGCTATGTGAAGCCAACCAAGAATATGAGCCCCAAGGAGCAGTTCTGGGGTAGACAGGT  
TCTCAGGCGGTCTGCAGGGAGAGCTCCATATCAGGAAAATGATGGCTATTGCCAGATTGAGGCTGAGTGATTC  
AGAGGCAGAAAGTGATGGGAATAAAGAAAAAGTCAGGGTAAGGAAAGATAGCTCAGACAGGGAAAATCCTCCCCA  
TGACTCTAGACGGGATTGCCATGGTAAAAGCAAGACACATCCCCCTTTCCACAGTTCAATGCAAAGGTGATTAGA  
AACTTCCAAGGATGACCCAACCTTTGCCTTTGCCCATATATTGGGGAAAACCCATACACCAAAGGATTTTAGC  
ATATGTTAAGAGGAATTGCAGTGAAAAGGATAACATTTTTCCATAGTAAATTGTCTTGACGTTTTTGAAAATGTT  
TCAAGTCTAGTTTTTACAAGCACATTACAGTAATTGCAGGTTGTCCAGAGGTTGGTTTGTGAGAGGCTATTGGGA  
ACAGCTGGGCCCAGGGTATTTGCTCAGTAAATATTTGGGGCAGCTTTCCGGTTATATAACACATTGACAAGTAT  
ATGTATTAAGAGTCCCTTGCAATTGTTAACTGATTGCAAGAGACCATGATTATCAGACACTAAACTACTTATCTT  
TTGAAGCTACAGCATGTGACTCCCCAGAGCTCCTGTCTGTAGGAAGTTTCTAATTCCACTGGTATCTATAAACCC  
TTTTCAGGGGAGAGACCAGGAGACCACCATCTTAGATACTGTCAAACCTCACTACTGTCTTCTTTGTTCTGCACA  
AGGTTGAGTTTTCTTTCACAGTATCTTAACCTACTGAGTCAATACTCCTCATGCTTATCAGTGTCCAGTGCCTGTT  
TCTAAACTTGCTTGTGGGGACACACTCATAACTATTTACCTGACTGACAAGCATAAAAAGGCTAACTTGTGGAT  
AGTGTTTACAAAAGTACAAAAGTACTACTTCCAAGGAAAATGCTCTGATTCTCTGTTTAGGCATTTGTGAAGGAT  
TCCAGAGCCTTTCCCAAAGTGAGACCATTTCTGGGGTATTTGTACCAGGTCAGGGTTTTTGTGTTGTTTTCAAAT



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**FIGURE 446B**

AAGTTTGACTAAAATAAGTTTGGCTGACAGTTTTTGTATACCTGCTTTAATGTTTATAAAATTTTTATTGAGGTA  
TAATTAATAATATAGTAAAATGCACAGAGGTTAAGTATTCTTACCTGCTTTAATTTTGAAACAGATTTTTATTGTC  
AAACAGAAATTTGAAAGCATGTGTTTAAACACATGGATATAATTTAGCTTTGTGTACCTTTGAATCTGAGGCAGTT  
TCCCAAAACAAAAGGCTGGAGCCATTTTTTCAGAAGTTGCTTATACCCTGTTCCCAAACATATCAGCCTTGATTAAT  
TTCTAGTAGGAAGAGAATAATTACATTTGCGGGGGGGGGGGTGGATAAAAACATGTCTGCTTCTCATTTAAATA  
AGAGAGAAATGATGCCGTTTTTTAAATGTGAAGCAGACTATAATTCTCAGCTCTCTTTTCTTCTTAGCCTTAAAT  
TAATATTCTCTTTCTTCTAGTTTTGGAAAGTGTAGTGGGAATATTCAGACAAAAGAGGCCATTTTCCATTTTTAA  
AGCTTCTTACTGGTGAAACAGCCCAGTTGTAGTAGGTGCCAGTCAGTCAAGGCAGGGGCCCTCTCTCCGTCAATA  
TGGAAAACTCAGCAGTTTTCTCTCCCCAGTTGTGTTCTTGTAACGTTGTTAATGGGTTCCCTTTGCTTTTTGCT  
TTCTCCTTTTCTGAAAATGTATGTGTTTTGCCTCTCTTTTGGCTACATCTTCAAAATATTTCTTTTGTGCCTATG  
TACATGTGTAAACATGCCATAGCATGTGTGGTAGGTGTCCTGTATTTTGTGTTGGGAAAAAACTATCAAAATGAG  
GAAGAGAATTTCCCCTATTTATGCACTAGGTTTCTGTGCTTTTTCTTTGAGTTCTCTGGAGTAGATATTAATTTG  
ATACCTTCATGGTAATGAAATTATGATGGAGCTGTGTTATAAATTCCTTATGTCAGAGGCCAGTGCGGTAGCCTT  
TGTCCCTTCATGCCTTTCAATTCTGAGTGGGAGGAAAAGCAAACATCAAAACAGTGCTTCAGCCAAATTCATAT  
GTAATGCCATTGGGAGAGTATTGACTAAAATATCATTCGTCAGGGAAAATATAGTTGTAATATTTTTACAGGATAT  
TCCTAGGTAAATGAAGGAGCCTTCAGTTGTAAATTTCAATTACCCCAAAATGTATTTGCTACATTTTGTGTTTG  
AAGTATTACCTCTTAACCTTCTTTGTTAATTTTTTTCATTTTGTCTTATATAGTCCAGTTTTCCAAGATAAGCTC  
AGTCCTTTTTCAAATGTCACCTTTTTACCAATACTTTTTCATTAATTTATGAAAACCTGCT

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**FIGURE 447**

MKRHRPVSSSDSSDESPSTSFTSGSMYRIKSKIPNEHKKPAEVFRKDLISAMKLPDSSHINPDSYLLFADTWKEE  
WEKGVQVPASPDTVPQPSLRIIAEKVKDVLFI RPRKYIHCSSPDTTEPGYINIMELAASVCRYDLDDMDIFWLQE  
LNEDLAEMGCGPVDENLMEKTVEVLERHCHENMNHAIETEEGLGIEYDEDVICDVCRSPDSEEGNDMVFCDKCNV  
CVHQACYGILKVPEGSWLCRSCVLGIYPQCVLCPKKGALKTTTKTKWAHVSCALWIPEVSIACPERMEPI TKI  
SHIPPSRWALVCNLCKLKTGACIQCSIKSCITAFHVTCFAFEHGLEMKTILDEGDEVKFKSYCLKHSQNRQKLGEA  
EYPHHRAKEQSQA KSEKTS LRAQKLRELEEEFYSLVRVEDVAAELGMPTLAVDFIYNYWKLKRKSNFNKPLFPPK  
EDEENGLVQPKEESIHTMRMFHMLRQDLERVRNLCYMISRREKLKLSHNKIQEQIFGLQVQLLNQEIDAGLPLT  
NALENSLFYPPPRITLKLKMPKSTPEDHRNSSTETDQQPHSPDSSSSVHSIRNMQVPQESLEMRTKSYPRYPLES  
KNNRLLASLSHSRSEAKESSPAWRTPSSECYHGQSLGKPLVLQAALHGQSSIGNGKSQPNKFAKSNGLEGSWSG  
NVTQKDSSEMFCQEPVFSPHLVSQGSFRKSTVEHF SRSFKETTNRWVKNTEDLQCYVKPTKNMSPKEQFWGRQ  
VLRRSAGRAPYQENDGYCPDLELSDSEAESDGNKEKVRVRKDSSDRENPPHDSRRDCHGKSKTHPLSHSSMQR

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**FIGURE 448**

CGCCTCTCCCAAAGTCTAGCCGGGCAGGGGAACGCGGTGCATTCTGACCGGCACCTGGCGAGGCTCATGCGTCC  
CGTGAGGGGCGGTTCTCGAGCCTGGGGGCGCTCAGATTGCTTTGGAGACGCTGAGAGAACCTTTGCGAGAGCGCC  
GGTTGACGTGCGGAGTGCGGGGCTCCGGGGGACTGAGCAGCACGAGACCCATCCTCCCCTCCGGGTTTTACAC  
TGGGCGAAGGAGGACTCCTGAGCTCTGCCTCTTCCAGTAACATTGAGGATTACTGTGTTTTGTGAGAGCTCGCT  
AGGCGCCCTAAGCAACAGAGTTCTGAGAAATCGAGAAACATGAATAAGGAATTGGCTGACTATTTTTATCCTTTTT  
CCCCTGAAGCTCGTAGAGAAATGTGAGTCAAGCGTCAGCCTCACTGTTCTCCTGTGCTAAAGCTGGAGAACGGC  
AGCTCGACCAACGTCAGCCTCACCTGCGGCCACCATTAATGCAACCCTGGTGATCACTTTTGAAATCACATTT  
CGTTCCAAAAATATTACTATCCTTGAGCTCCCCGATGAAGTTGTGGTGCTCCTGGAGTGACAACTCCTCTTTT  
CAAGTGACATCTCAAAATGTTGGACAACCTTACTGTTTATCTACATGGAAATCACTCCAATCAGACCGGCCGAGG  
ATACGCTTTCTGTGATCCGCAGCAGCGCCATTAGCATCATAAACCAGGTGATTGGCTGGATCTACTTTGTGGCC  
TGGTCCATCTCCTTCTACCCTCAGGTGATCATGAATTGGAGGCGGAAAAGTGTGATTGGTCTGAGCTTCGACTTC  
GTGGCTCTGAACCTGACAGGCTTCGTGGCTACAGTGTATTCAACATCGGCCCTCCTCTGGGTGCCCTACATCAAG  
GAGCAGTTTCTCCTCAAATACCCCAACGGAGTGAACCCCGTGAACAGCAACGACGTCTTCTCAGCCTGCACGCG  
GTTGTCTCAAGCTGATCATCATCGTGCAGTGTGCTGCTGTATGAGCGCGGTGGCCAGCGCGTGTCTGGCCTGCC  
ATCGGCTTCTGGTGCTCGCGTGGCTCTTCGCATTGTGACCATGATCGTGGCTGCAGTGGGAGTGATCACGTGG  
CTGCAGTTTCTCTTCTGCTTCTCCTACATCAAGCTCGCAGTCACGCTGGTCAAGTATTTTCCACAGGCCTACATG  
AACTTTTACTACAAAAGCACGTGAGGGCTGGAGCATTGGCAACGTGCTCCTGGACTTCACCGGGGGCAGCTTCAGC  
CTCCTGCAGATGTTCTCCTCCAGTCTTACAACAACGACCAGTGGACGCTGATCTTCGAGACCCAACCAAGTTTGA  
CTCGGGGTCTTCTCCATCGTCTTCGACGTGCTCTTCTCATCCAGCACTTCTGTTTGTACAGAAAGAGACCGGGG  
TATGACCAGCTGAACTAGCACCCAGGGACCCAGTGTACCCAGCCTCTGGCCTCGTGCCCTGCTGGGGAAGGCCCTC  
ACCCAGCGAAGGCCGGAGAGCGGTTGGGCCCTGGCACACAGGGCTGGCTCAGTGTGCGGACAGAGGAGACCACT  
CTGCTCCTGGGGCCAGAGGCCATTCAATAGCCTGCCCTTCGTCCGGGCCCCCTCCTGGGCCTCCCCGGCCAGGCACG  
TGGCACCGTCGCCTTGACACCGCCATCTCTTTTCTTTAAGGCTTCAGGCAGCGCGCACAGGCTCTGGCAGCCGTC  
TCAGGCAGGACTGGGCACCAAGCTTGACGCCGAAGGCCCTTGCCCCAACTACCAGCGTTTCTGCAAGCAGCTTGA  
AGGGCTGACCTTGACGCCGGGTGAGCCAAGGGCACTTTGCTGCCACCGCTGCATTCCCAGAGATCAAGCAGCCCG  
GTGCCGTGGCCAGTGAACCTCAGAGGTGCTGGTGGACGGGCTAGGACTTTGGGGTTAGGCCATGGGGCTCTTTCTC  
TGAAGGCCACTTTCTGACGTACTCTCTGTACATAACTCAGCGTCCGTGACTGCAGTAACAGCCAGCCCTACCCA  
GAGTATTTCTGAGCCATGAGGGGGCCACCAGATTGGTTCTGAATTGGATTGATGCCAGCGCATTAGCATAGTAA  
CTCCTTTTCAATTTTTTGGAGGGACGTTTGGGAAGTGGCTTACTCTCTTCTGCCCTCTCTCCTACCTCCACCTTCT  
CAGATGAGCCCCATCTGAGCACATCCAGCTGCTCCTTACCCAGCATCTGGAGTACAGGACATAGCTCTCTCCTGC  
TACCAGTCTGTGCCTTAGAGGTGCTTAGGCCTGCCAAACGGCGACCAGCTCCCCTGGAGCGAGGGCAGGCCCTT  
CCCTCTCTTTCCCCAGACACCTACTTGAGACTACCAATTTCTGGCCTGTTTCAAGGACCTCAGATAAGTATTTGT  
ACTTGAGACCACCTCACACAATCTGTATGGGCCCAACCCTGATCTCAAACCTCCTTCCCTCTGCCCAAAGCTGTC  
CTTCTATGGCAGGAGGGGTGGGGGTCCCAGGACGTGCCTCATACATGACTTGAGCTTGTGAGTCCACTGAGTTT  
CCTTCTACGAGATCAACGCGAGGGGGCTGTATCTTGAATTAAAGCCTACTCGCTTCCTTTT

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**FIGURE 449**

MIRNWLTIIFILFPLKLVEKCESSVSLTVPPVVKLENGSSTNVSLTLRPPLNATLVITFEITFRSKNITILELPDE  
VVVPPGVTNSSFQVTSQNVGQLTVYLHGNHNSQTGPRIREFLVIRSSAISIIINQVIGWIIYFVAWSISFYFQVIMNW  
RRKSVIGLSFDFVALNLTGFVAYSVFNIGLLWVPYIKEQFLLKYPNGVNPVNSNDVFFSLHAVVLTIIIVQCCL  
YERGGQRVSWPAIGFLVLAWLFAFVTMIVAAGVITWLQFLFCFSYIKLAVTLVKYFPQAYMNFYKSTEGWSIG  
NVLLDFTGGSFSLQMFLQSYNNDQWTLIFGDPTKFGLGVFSIVFDVVFFIQHFCLYRKRPGYDQLN

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**FIGURE 450A**

GCGCGCGGGCAGCTCACTTCCGCCCCGGCAGGTGACAGCCGCGGGGCTCCGAGCCGCCGGCAGCCCGGACGCACCG  
GGAGAGCGAGAGGTGGAGGCCCGCGGACATTTTGGTGCCAAGCCGAACCGAGCCGGGGCGCCGGGAGCTATTGGGA  
CCTGCGGAAGCCTGGCTACAGATAAGGGACCAAAATGACTGACTCAAAATATTTTACCACGACCAAGAAAGGGGA  
GATCTTCGAGCTGAAGGCAGAGCTCAACAGTGACAAGAAGGAGAAGAAGAAGGAGGCAGTGAAGAAAGTGATTGC  
ATCGATGACCGTGGGCAAAGATGTGAGTGCCCTCTTCCCCGATGTGGTCAACTGCATGCAGACGGACAACCTGGA  
GCTGAAGAAGCTAGTATACCTCTACTTGATGAATTACGCCAAGAGTCAGCCTGACATGGCCATTATGGCCGTCAA  
CACCTTTGTGAAGGACTGTGAGGACCCCAACCCCTCATCCGAGCCCTGGCAGTGCGGACCATGGGCTGCATCCG  
CGTTGACAAGATCACAGAGTACCTGTGCGAGCCACTCCGGAAGTGCCTGAAGGACGAGGATCCATATGTGCGCAA  
GACAGCAGCTGTGTGCGTGGCCAAGCTCCACGACATCAACGCCAGCTGGTGGAGGACCAGGGCTTCCTGGACAC  
CCTTAAAGACCTCATCTCCGACTCTAACCCCATGGTGGTGGCCAATGCAGTGGCAGCGCTCTCAGAAATTGCCGA  
GTCTCACCCAGCAGCAACCTGCTCGATCTGAACCCACAGTCCATCAACAAGCTGCTGACAGCCCTCAATGAGTG  
CACCGAGTGGGGCCAGATCTTCATCCTGGACTGCCTCGCCAATATATGCCCAAGGACGACCGCGAGGCCCAGAG  
CATCTGTGAGCGGGTCAACCCAGGCTCTCCCATGCCAACTCCGCTGTGGTGTCTCTGCTGTGAAGGTGCTGAT  
GAAGTTCATGGAGATGTTGTCTAAGGACTTGGACTACTACGGCACACTGCTCAAGAAGCTGGCCCCACCCCTGGT  
CACACTGCTGTGAGCCGAGCCAGAGCTGCAGTATGTGGCCCTGCGCAACATCAATCTCATCGTGCAGAAAAGGCC  
TGAGATCCTGAAGCATGAGATGAAGGTGTTCTTCGTGAAGTACAACGACCCTATCTACGTGAAGCTGGAGAAGCT  
GGACATCATGATCCGCTGGCCTCTCAGGCCAACATCGCCAGGTGTTGGCAGAGCTGAAAGAGTACGCAACAGA  
AGTGGATGTGGAATTTGTACGGAAGGCTGTGCGTGCTATTGGCCGCTGCGCCATCAAGGTGGAGCAATCTGCGGA  
GCGCTGTGTGAGCACGCTGCTCGACCTCATCCAGACCAAGGTCAACTATGTGGTCCAGGAGGCCATCGTGGTCAT  
CAAGGACATCTTCCGCAAGTACCCCAACAAGTATGAGAGTGTGATTGCCACACTGTGTGAGAATCTGGACTCCCT  
GGATGAGCCTGAGGCCCGGGCTGCCATGATCTGGATTGTGGGCGAGTACGCGGAACGGATCGACAACGCAGATGA  
GCTGCTGGAGAGCTTCTTCGAGGGCTTCCATGACGAGAGCACACAGGTCCAGCTGCAGCTGCTGACAGCCATTGT  
GAAACTCTTTCTAAAGAAGCCAACAGAGACCCAGGAGCTGGTGCAGCAGGTCTCTCAGTTTGGCCACTCAGGACTC  
AGATAACCCAGACCTGCGGGACCGTGGCTACATCTACTGGCGCTGCTGTCCACGGACCCGGTGGCAGCCAAGGA  
GGTGGTGTGGCTGAGAAGCCACTCATCTCTGAAGAGACGGACCTCATCGAGCCACACTGTTAGACGAGCTTAT  
CTGCTACATCGGCACGCTGGCTTCCGTCTACCATAAGCCTCCAGTGCTTTGTGGAGGGGGGCGGGGCGTCTGT  
GCACAAGAGCCTGCCACCTCGCACGGCCTCGAGTGAGAGCGCAGAGAGCCCTGAGACAGCCCTACTGGAGCACC  
TCCTGGGGAGCAGCCAGATGTCTATCCCCGCCAGGGCGACCTGCTGGGTGACCTCCTCAACCTGGACCTCGGCCC  
CCCAGTGAGCGGGCCACCCCTGGCCACCTCCTCGGTGCAGATGGGAGCTGTGGACCTTCTTGGCGGTGGCCTTGA  
CAGCCTGATGGGGGATGAGCCTGAAGGGATTGGGGGCACCAACTTCGTGGCACCTCCAACAGCAGCAGTACCAGC  
CAATCTTGGAGCACCCATCGGCAGTGGCCTGAGTGACCTCTTTGACCTGACCAAGTGGCGTGGGCACCCCTGTCAGG  
ATCATATGTGGCCCCAAAGCAGTCTGGCTCCAGCCATGAAGGCTAAGGGGCTGGAGATCTCAGGCACCTTCAC  
CCGCCAGGTGGGCTCCATCTCCATGGACCTGCAGCTGACCAACAAGGCCTTGCAAGTTCATGACCGACTTTGCCAT  
CCAGTTCAACCGCAACAGCTTTGGCCTGGCCCCCGCCACCCCTCCAGGTCCACGCGCCACTCAGCCCCAACCA  
GACAGTGGAGATCTCCCTGCCTCTCAGCACGGTGGGCTCGGTCTATGAAGATGGAGCCTCTGAACAACCTCCAGGT  
GGCCGTGAAGAACAACATCGATGTCTTCTACTTCAGCACCTTGTACCCACTGCACATCCTCTTTGTGGAGGACGG  
GAAGATGGACCGGCAGATGTTCTGGCCACATGGAAGGATATTCCCAATGAGAATGAGGCCAGTTCCAGATCAG  
AGACTGCCCCCTCAATGCAGAGGCTGCGAGCAGCAAGCTGCAGAGCAGCAACATCTTCACTGTGCGCAAGAGGAA  
CGTGGAGGGCCAGGACATGCTCTACAGTCCCTGAAGCTGACCAACGGCATCTGGGTGCTGGCGGAGCTGCGGAT  
CCAGCCGGGCAACCCAGCTGCACGGACTTAGAGCTGTCCCTGAAGTGTGAGCACCAGAGGTGTCCAGCACGT  
GTACCAGGCCTACGAGACCATCTCAAGAACTGAGACCCCGGCCAGCGCCACCCAGCCTTCTGCCC GCCCAT  
CGAGGAGGCCCTCGGGGGCAGCACATCTTCTCTCCGAGGAGGACCAGGCGGGGCTCCAGGCCACTCAGTGG  
GCTCCCTGGTCTGATGGCAGAACCCACCCGATCCCTGGGGTAGGGACCACCCCTCTGCGGTGAGAGCGCAG  
TGCACTCCCGTGTCTGAGGACACCCCTGCTCCTGTGGCTGTGATGTGGGGTTAAGTGAGGTGGGGACCAAGGAA  
ACAGAGCCAGAGCAGCCACAGAAGCTGTGCCTGAAGGGTGAGTGTGGAGCTTGCCCTCCGGCTCACAGCCCCGG  
CAGCCCTGGCTCCTTGGTCTCTCCGGTTGGTGTAAAGGGCCCTCCACTGCCACCTCTCATGGGATGGACCCTG  
CCAACCTGGCCTGGGTGTGAGGAGGGGTTCCCCTTGGTACCAGGAGAGCTGCTCACTTAGGGCTGGGGCTCA  
AGGAGCTGTAGGTGCCGGCAGAGGGGCAGAGCTAGGCTGGGAGGAGCCAGGGCCTGCACCACCCACTTGCAACC

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**FIGURE 450B**

ACCAGGCTGGTGCCCTGCAGCTGTGCCAGTTGGGCCACAGCCTCCCGAGTGCTGACCCACATGGTCAAGACCAGG  
CAGAAGCTCCCAGAGCCCCTGTCTCGGGCTCCCCACCGACTGGCAGCTGCACTATCCCCAACTCCCCACTTCTGC  
CCCAAGGGTGGTCACTGCCTGTGATACATTCCCTCAGTGTCGCCTCTGAGCCCAGGCCTCCTGCCACAAAGACTGG  
GCCGAGAGATGGGGCTGGGTAAGCGGGTGCGCCTCCTGTTTGGGTTTCTTCGGGGTTTCTCTGTAGTGCTGCTG  
CCCTCCTCCTGGCCTCCCAGGTTTTCAGTTGTGTCTGACAGAGCATTAGGTTTTCTGTACTGCTGTGTAATAAT  
AAAGAAAGATTCGGCTTTTGGCAATCACGGACACTTTTTTCCCCTCCACCGAATGTCAGGATTGAAAGCTGCCTC  
CGAGTGGTTGGGGATGGTTTTCTGACCCTACGGTAACTAGATCTAATATATATCATCAGAAAATATATATTGTAT  
GTTTACTCTTATTTTCAGAAAGAGAAAATGAATAAAAATGATGACATCAA

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**FIGURE 451**

MTDSKYFTTTKKGEIFELKAELNSDKKEKKKEAVKKVIASMTVGKDVSAFPDVVNCMQTDNLELKKLVYLYLMN  
YAKSQPDMAIMAVNTFVKDCEDPNPLIRALAVRTMGCIRVDKITEYLCEPLRKCLKDEDPYVRKTAAVCVAKLHD  
INAQLVEDQGFLDTLKDLSDSNPMVVANAVAALSEIAESHPSNLLDLNPQSINKLLTALNECTEWGQIFILDC  
LANYMPKDDREAQSI CERVTPRLSHANSVVL SAVKVLKFMEMLSKDL DYYGTLLKKLAPPLVTLLSAEPQLQY  
VALRNINLIVQKRPEILKHEMKVFFVKYNDPIYVKLEKLDIMIRLASQANIAQVLAELKEYATEVDVDFVRKAVR  
AIGRCAIKVEQSAERCVSTLLDLIQTKVNYVVQEAIVVIKDIRKYPNKYESVIATLCENLDSLDEPEARAAAMIW  
IVGEYAERIDNADELLESFLEGFHDESTQVQLQLLTAIVKFLFKKPTETQELVQQVLSLATQSDNPDLRDRGYI  
YWRLSTDPVAAKEVVLAEKPLISEETDLIEPTLLDELICYIGTLASVYHKPPSAFVEGGRGVVKSLPPRTASS  
ESAESPETAPTGAAPPGEQPDVIPAQGDLLGDLNLDLGPPVSGPPLATSSVQMGAVDLLGGGLDSLMDPEGIG  
GTNFVAPPTAAVPANLGAPIGSGLSDLFDLTSGVGTLSGSYVAPKAVWLPAMKAKGLEISGTFTRQVGSISMDLQ  
LTNKALQVMTDFAIQFNRRNSFGLAPAAPLQVHAPLSPNQTVETSLPLSTVGSVMKMEPLNNLQVAVKNNIDVFYF  
STLYPLHILFVEDGKMDRQMF LATWKDIPNENEAQFQIRDCPLNAEAASSKLQSSNIFTVAKRNVEGQDMLYQSL  
KL TNGI WVLAE LRIQPGNP SCTDLELSLKCRAPEVSQH VYQAYETILKN

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**FIGURE 452**

AAATGCACAACCCGGACGGAAGTGCCTCTCCGACAGCAGATCCAGGCTCGGAGCTCCAGACGCTGGGACAGGCCG  
CCCGCAGACCACCCCGCCGCGCGCGGGACACGACGCCCCCGCAGGACACGCCCATCAGCCCGGAAACCCCTGA  
GCTGCTTCTCCCGGAGGCCGATGCCCACCCGGGAGCCCCAAAGACTCGCGGCTCCCGGGGGCACCTGCATACTC  
ACCCGCTTGGGCTGGGCCCCCGCTGCAGGGACTGGCGCCCCGAGGCCTCAAAACCAGCGCCCCCGCCCTCCGT  
GCCAGCCCCAGCCGGGACCCCAAGGCAAAGACCAAGAAGATTGTGTTTGAGGATGAGTTGCTCTCCCAGGCC  
TCCTGGGCGCCAAGAAGCCTATTGGAGCCATCCCTAAGGGGCATAAGCCTAGGCCCCACCCAGTGCCCGACTATG  
AGCTTAAGTACCCGCCAGTGAGCAGTGAGAGGGAACGGAGCCGCTATGTCGCAGTGTTCCAGGACCAGTACGGAG  
AGTTCTTGAGCTCCAGCACGAGGTGGGGTGTGCACAGGCAAAGCTCAGGCAGCTGGAGGCCCTGCTGAGCTCCC  
TGCCCCCACCCCAAAGCCAGAAGGAGGCCCAAGTTGCAGCCCGGGTTTGGAGGGAGTTTGAGATGAAGCGAATGG  
ATCCTGGCTTCCTGGACAAGCAGGCTCGCTGCCACTACCTGAAGGGTAAACTGAGGCATCTCAAGACTCAGATCC  
AGAAATTCGATGACCAAGGAGACAGCGAGGGCTCCGTGTACTTCTAAAGTGCCCTGCAGATGGGCAGAGGGATGC  
ATGGGGATGCAGGTCCCTTGCAATTTCTTGGTATCTCTCAGCTTTTCTCTTGAGCTCCCCCTACCAGGGGTGCG  
TTTCTCCTGGATTGCAATGCCTCTTCAGTTTGGACTCAGCTCTGACAGCCCCCTCCTCCAGGAAGGCCTTCCAGG  
ACTTCCTCCTCTGGGTCTCTAGCTCTGACCCCTACAGGGAAGTCCAGATCTCAACCTGTTCCCTGGAAGTAGGGCC  
TGCTCTCCATCCCAGTGAAATAAACATGTATTAGACACCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 453**

MHNPDGSASPTADPGSELQTLGQAARRPPPPRAGHDAPRRTRPSARKPLSCFSRRPMP TREPPKTRGSRGHLHTH  
PPGPGPPLQGLAPRGLKTSAPRPPCQPQPGPHKAKTKKIVFEDELLSQALLGAKKPIGAIPKGHKPRPHVPDYE  
LKYPVSSERERSRYVAVFQDQYGEFLELQHEVGCAQAKLRQLEALLSSLPPPPSQKEAQVAARVWREFEMKRMD  
PGFLDKQARCHYLKGKLRHLKTQIQKFDDQGDSEGSVYF

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**FIGURE 454**

ACTTCTGACAGTGGGGAAAGCAGCTGTGTGTGATAGCTTGAAGGTTTACTGCTGCCTCAAGTCTCTTCTCTGC  
AGTTGAGGTTTCAGGTTTCAATCCTCCCAATACCACAAGACAGAGCACGGGGCGGCTGCCGCCTCCGCCTCCGCG  
CCTTAACCTAGGCGGCTTGCCGAAGATCTCAGCCCCGCGGCCGCGCGCTCGCCCTGCCCTAGACCAGGGTTGGGC  
GCAGCGGCGGAGGTGGCTTCTGGGCTGCGCGAGCTGGGAGAGCTGGGAGGCGGCGATCGCAGCTGGGCCGGGACT  
TCCTTCCTCCACCGCACGGCAACAAAACAACCCTGCGGCAGGCACTGAGTGCTTCGCAGCTGTCTGGGCGAGAGG  
CACAGCGATGGGCTCCGTGCTGAGCACCGACAGCGGCAAAATCGGCGCCCGCCTCTGCCACCGCGCGGGCCCTGGA  
GCGCAGGAGGGACCCGGAGTTGCCCGTCACGTCTTCGACTGCGCCGTGTGCCTTGAGGTGTTACACCAGCCTGT  
CCGACCCGCTGCGGCCACGTATTCTGCCGTTCTGTATTGCTACCAGTCTGAAGAACAACAAGTGGACCTGTCC  
TTATTGCCGGGCATATCTTCCTTCAGAAGGAGTTCCAGCAACTGATGTAGCCAAAAGAATGAAATCAGAGTATAA  
GAACTGCGCTGAGTGTGACACCCTGGTTTGCTCAGTGAAATGAGGGCACATATTCGGAATTGTCAGAAGTACAT  
AGATAAGTATGGACCACTACAAGAACTTGAGGAGACAGCAGCAAGGTGTGTATGTCCCTTTTGTGAGAGGAACT  
GTATGAAGACAGCTTGCTGGATCATTGTATTACTCATCAGATCGGAACGGAGGCCTGTGTTCTGTCCACTTTG  
CCGTTTAATACCCGATGAGAATCCAAGCAGCTTCAGCGGCAATTTAATAAGACATCTGCAAGTTAGTCACACTTT  
GTTTTATGATGATTTTCATAGATTTTAATATAATTGAGGAAGCTCTTATCCGAAGAGTCTTAGACCGGTCACCTCT  
TGAATATGTGAATCACTCGAACACCACATAAATTTTATTAACGAAGGGAAAAGGGACCACTGAATTGCACCATT  
TAAGATGCTGCTTGAACAAATGGGAGGGAAGTTGTCAATGATTGATGGGCAAAAATGTACAACACAGTTATGTGT  
TTGTCCAIGTTTTATTGTTATAGTGCATTTAAAAACTGCTTTAATTTAATGGTTTAAATCTGTTTTACATCCTTG  
AGATTCTTACACATCTAACAACAAAAAAATTATCTACATCAGTCATTGTTACATGGAAAAGACAGGTGGTAGGC  
AAGTAGGTGGAGGATCTCGGTTTGCAAATTAGATAATACTCTGTGTATAATGCTACATATCAATAACTACCATCA  
TGGTTAGGCACGATAACTAATCTTTGTTCTGTGTAAAAAAATATGGAGAGTGAAACAAAGTGCAGACATTCAAAG  
AAATAAGAAATCTGCTCCAATGCTCTTGTCTAATCTCTAATAGGTTAACGTTAATAATCTTGATGGGAGTTGG  
AAAGGAAAAATTTTGAAGTCAAGAAAGTCCATTTAGGCCGGACGCGGTGGCTTACGCTTGTAAGTCCCAGCACTTT  
GGGAGGCTGAGGCAGGCGGATCACAGGTCGGGAGTTTCGAGACCAGCCTGGCCAACACTGGTCTCTGTGAAACTC  
CGTCTCTACTGAAAAATGCAAAGATTGGCTGGACGTGTTGGCGGGCATCTGTGATACCAGCTACTTGGGAGGCTGA  
GGCAGAAGAATCGCTTGAGCCCGGGAGGCGGAGGTTGCAGTGAGCTGAGATCGCGCCAGTACACTCCAGCCTGGG  
TAACAGAGCTAGACTCCATCTCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 455**

MGSVLSTDSGKSAPASATARALERRRDPELPVTSFDCAVCLEVLHQPVRTRCGHVFCRSCIATSLKNNKWTCPYC  
RAYLPSEGVPATDVAKRMKSEYKNCAECDTLVCLSEMPRAHIRTQKYIDKYGPLQELEETAARCVCPCQRELYE  
DSLDDHCITHHRSERRPVFCPLCRLIPDENPSSFSGNLIRHLQVSHTLFYDDFIDFNIIEEALIRRVLDRLLEY  
VNHSNTT

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**FIGURE 456**

GCCGCCAGCGGCTTTCTCGGACGCCTTGCCAGCGGGCCGCCCGACCCCTGCACCATGGACCCCGCTCGCCCC  
TGGGGCTGTCGATTCTGCTGCTTTTCCTGACGGAGGCTGCACTGGGCGATGCTGCTCAGGAGCCAACAGGAAATA  
ACGCGGAGATCTGTCTCCTGCCCCTAGACTACGGACCTGCCGGGCCCTACTTCTCCGTTACTACTACGACAGGT  
ACACGCAGAGCTGCCGCCAGTTCCTGTACGGGGGCTGCGAGGGCAACGCCAACAATTTCTACACCTGGGAGGCTT  
GCGACGATGCTTGTGGAGGATAGAAAAAGTTCCCAAAGTTTGCCGGCTGCAAGTGAGTGTGGACGACCAAGTGTG  
AGGGGTCCACAGAAAAGTATTTCTTTAATCTAAGTTCCATGACATGTGAAAAATTCTTTCCGGTGGGTGTCACC  
GGAACCGGATTGAGAACAGGTTTCAGATGAAGCTACTTGTATGGGCTTCTGCGCACCAAGAAAATTCCATCAT  
TTTGCTACAGTCCAAAAGATGAGGGACTGTGCTCTGCCAATGTGACTCGCTATTATTTTAATCCAAGATACAGAA  
CCTGTGATGCTTTCACCTATACTGGCTGTGGAGGGAATGACAATAACTTTGTTAGCAGGGAGGATTGCAAACGTG  
CATGTGCAAAAGCTTTGAAAAAGAAAAAGAAGATGCCAAAGCTTCGCTTTGCCAGTAGAATCCGGAATAATTCGGA  
AGAAGCAATTTTAAACATTCTTAATATGTCATCTTGTTTGTCTTTATGGCTTATTTGCCTTTATGGTTGTATCTG  
AAGAATAATATGACAGCATGAGGAAACAAATCATTGGTGATTTATTACCAAGTTTTTATTAATACAAGTCACTTT  
TTCAAAAATTTGGATTTTTTTATATATACTAGCTGCTATTCAAATGTGAGTCTACCATTTTTAATTTATGGTTC  
AACTGTTTGTGAGACGAATTCTTGCAATGCATAAGATATAAAAGCAAATATGACTCACTCATTTCTTGGGGTCGT  
ATTCTGATTTTCAAGAGGATCATAACTGAAACAACATAAGACAATATAATCATGTGCTTTTAACATATTTGAG  
AATAAAAAGGACTAGCC

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**FIGURE 457**

MDPARPLGLSILLFLTEAALGDAAQEPTGNNAEICLLPLDYGPCRALLRYYYDRYTQSCRQFLYGGCEGNANN  
FYTWEACDDACWRIEKVPKVCRLQVSVDQCEGSTKEYFFNLSSMTCEKFFSGGCHRNRIENRFPDEATCMGFCA  
PKKIPSFYCYSKDEGLCSANVTRYFNPRTCDFTYTGCGGNDNNFVSREDCKRACAKALKKKKKMPKLRFAS  
RIRKIRKKQF

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**FIGURE 458**

ATGTCAGCCCCACTGGATGCCGCCCTCCACGCCCTTCAGGAGGAGCAGGCCAGACCGCCCTCCACGCCCTTCAGG  
AGGAGCAGGCCAGACTCAAGATGAGGCTGTGGGACCTGCAGCAGCTGAGAAAGGAGCTCGGGGACTCCCCAAAG  
ACAAGGTCCCATTTTCAGTGCCCAAGATCCCCCTGGTATTCCGAGGACACACCCAGCAGGACCCGGAAGTGCCTA  
AGTCTTTAGTTTCCAATTTGCGGATCCACTGCCCTCTGCTTGCGGGCTCTGCTCTGATCACCTTTGATGACCCCA  
AAGTGGCTGAGCAGGTGCTGCAACAAAAGGAGCACACGATCAACATGGAGGAGTGCCGGCTGCGGGTGCAGGTCC  
AGCCCTTGAGCTGCCCATGGTCACCACCATCCAGGTGATGGTGTCCAGCCAGTTGAGTGGCCGGAGGGTGTGG  
TCACTGGATTTCTGCCAGCCTCAGGCTGAGTGAGGAGGAGCTGCTGGACAAGCTAGAGATCTTCTTTGGCAAGA  
CTAGGAACGGAGGTGGCGATGTGGACGTTTCGGGAGCTACTGCCAGGGAGTGTCATGCTGGGGTTTGCTAGGGATG  
GAGTGGCTCAGCGTCTGTGCCAAATCGGCCAGTTCACAGTGCCACTGGGTGGGCAGCAAGTCCCTCTGAGAGTCT  
CTCCGTATGTGAATGGGGAGATCCAGAAGGCTGAGATCAGGTGCGCAGCCAGTTCCCCGCTCGGTACTGGTGCTCA  
ACATTCCGTGATATCTTGATGGCCCGGAGCTGCATGACGTCCTGGAGATCCACTTCCAGAAGCCCACCCGCGGGG  
GCGGGGAGGTAGAGGCCCTGACAGTCGTACCCCAAGGACAGCAGGGCCTAGCAGTCTTCACCTCTGAGTCAGGCT  
AGGGGCCTCCCCCTTCTCATCCTCCCCACCCCCCGCAAGGTTCTCACACTGGCCTGGGCTTGGGTGCCCATATA  
GGAGGTCTGTATGTTACCAACAGTGCGGAGGGGTACACATTGCAAAACACTGCCCAGAACAGTAAAAAGAGCC  
TGCATGCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

GGCCACGAGGCGACCGCTCCCGCGGGGAGGCCAGCGAAGGTTTCCATGTGACGAGGCCGATGGAGAAGCTGAAGATT  
GCCACCTACGCACAAAGGCCATTGAGACACTTCGTGTAGCTGGAAGACACCAACTTCCTGACAGGAGCTTTATTT  
CATTTGGGATTTCAAGTTTACAGATGGTATCTTCTCAAAAGTTGGAAAAACCTATAGAGATGGGCAGTAGCGAAC  
CCCTTCCCATTCGCAGATGGTGCAGGAGGAGGAAGAAGAAGCGGAGGGGCCGGGCCACTGACTCCTTGCCAGGAA  
AGTTTGAAGATATGTACAAGCTGACCTCTGAATTGCTTGGAGAGGGAGCCTATGCCAAAGTTCAAGGTGCCGTGA  
GCCTACAGAATGGCAAAGAGTATGCCGTCAAAATCATCGAGAAACAAGCAGGGGCACAGTCGGAGTAGGGTGTTC  
GAGAGGTGGAGACGCTGTATCAGTGTACAGGAAACAGAACATTTTGGAGCTGATTGAGTTCTTTGAAGATGACA  
CAAGGTTTTACTTGGTCTTTGAGAAATTGCAAGGAGGTTCCATCTTAGCCACATCCAGAAGCAAAGCACTTCA  
ATGAGCGAGAAGCCAGCCGAGTGGTGCGGGACGTTGCTGCTGCCCTTGACTTCCTGCATACCAAAGACAAAGTCT  
CTCTCTGTCACCTAGGCTGGAGTGCTATGGCGCCATCAGGGCTCACTGCAGCCCCAACCTCCCTGGGCTCCAGTG  
ATCCTCCCACCTCAGCCTCCCAAGTAGCTGGGACTACAGGCATTGCTCATCGTGATCTGAAACCAGAAAATATAT  
TGTGTGAATCTCCAGAAAAGGTGCTCCAGTGAAAATCTGTGACTTTGACTTGGGCAGTGGGATGAAACTGAACA  
ACTCCTGTACCCCCATAACCACACCAGAGCTGACCACCCCATGTGGCTCTGCAGAATACATGGCCCCCTGAGGTAG  
TGGAGGTCTTCACGGACCAGGCCACATTCTACGACAAGCGCTGTGACCTGTGGAGCCTGGGCGTGGTCTCTACA  
TCATGCTGAGTGGCTACCCACCCCTTCGTGGGTACATGCGGGGCCGACTGTGGCTGGGACCAGGGGCGAGGTCTGCA  
GGGTGTGCCAGAACAAAGCTGTTTGAAGCATCCAGGAAGGCAAGTATGAGTTTCTTGACAAGGACTGGGCACACA  
TCTCCAGTGAAGCCAAAGACCTCATCTCCAAGCTCCTGGTGCAGATGCAAAGCAGAGACTTAGCGCCGCCAAG  
TTCTGCAGCACCCATGGGTGCAGGGGCAAGCTCCAGAAAAGGGACTCCCCACGCCGCAAGTCTCCAGAGGAACA  
GCAGCACAAATGGACCTGACGCTCTTCGCAGCTGAGGCCATCGCCCTTAACCGCCAGCTATCTCAGCACGAAGAGA  
ACGAACTAGCAGAGGAGCCAGAGGCACTAGCTGATGGCCTCTGCTCCATGAAGCTTTCCCTCCCTGCAAGTCAC  
GCCTGGCCCCGGAGACGGGCCCTGGCCCAGGCAGGCCGTGGTGAAGACAGGAGCCCCGCCACAGCACTCTTGAAATG  
CTCCAGTCACACCTTATAGGCCCTAGGCCTGGCCAGGCATTGTCCCTTGAAACCTGTGTGGCTAAAGTCTGCTG  
AGCAGGCAGCAGCCTCTGCTCTGTGGCTCCATTACAGGCTTTTTTCATCTACGAAGGCCCTGAGGTTCCTATCAACC  
CCCATTTCCTTAGGGTCTTGAGGAAAAAGCTTTTTCCAAAGGGGTGTCTTTGAAAAGGAAAGCAATCACTTCT  
CACTTTGCATAATTGCCTGCAGCAGGAACATCTCTCACTGGGCTCCACCTGCTCACC CGCTGCAGATCTGGGA  
TCCAGCCTGCTCTCACCGCTGTAGCTGTGGCGGCTGGGGCTGCAGCCTGCAGGGAGAAGCAAGAAGCATCAGTTG  
ACAGAGGCTGCCGACAGTGCTCTTCCCTCTCTTCTCTGTCAACCCTCTCTGGCGGTCTTCCACCTTCTCTG  
TCTCCGGATGTCTCTTTGCCCGTCTTCTCCCTTGGCTGAGCAAAGCCATCCCTCAATTACAGGGAAGGGCAAG  
GAGCCTTCTCTATTACAGGAAATCAAATCAGTCTTCCGGTCTGCAGCACGGAAAAGCACATAATCTTTCTTTGCTG  
TGACTGAAATGTATCCCTCGTTTATCATCCCTTTTGTGTGATTGCTGCTAAAGTCAGTAGTATCGTTTTTTTA  
AAAAAAAAGTTTGGTGTTTTTAACCATGCTGTTCCAGCAAAGATGATACCTTAAACTCCCACTGCAAGCCCCATGA  
ACTTCCCAGAGAGTGGAACGGCTTGCTCTTCTTTCTAGAATGTCCATGCACTTGGGTTTTAATCAGCAGTTCCT  
ATTATTCTGATTTTAAAGCTGTTCCTGTGATGAACTTAGAGACAGCATCGGTGTCTGCTGCTGTGTCCCAGGTCT  
TGTGTGGGTGGCACAGATCTGGGCAGTTAGATAGTGCTCTGTGCCTAAGGTGAAGCCACACTAGGGTGAAGCCTC  
ACTTCCCTGTTTTGAGCAATGCAGTGCTGCTGCCCGTGTGCATGAAGGTACAGCCATTAGATAAGTGGAACATAT  
TGAGTTACATAAAAGAAAAATAGATTGCAATTGTGAGGCAGACGTTTATACAACACCACGGTGCTTTTATACATTG  
TGCTTATTTTAAATAAACTGAAATTCTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 460**

MVSSQKLEKPIEMGSSEPLPIADGDRRRKKRRGRATDSLPGKFEDMYKLTSELLGEGAYAKVQGAVSLQNGKEY  
AVKII EKQAGHSR SRVFREVETLYQCQGNKNILELIEFFEDDTRFYLVFEKLQGG SILAHIQKQKHFNEREASRV  
VRDVAAALDFLHTKDKVSLCHLGWSAMAPSGLTAAPTSLGSSDPPTSASQVAGTTGIAHRDLKPENILCESPEKV  
SPVKICDFDLGSGMKLNNSCTPITTPELTTPCGSAEYMAPEVVVEVFTDQATFYDKRCDLWSLGVVLYIMLSGYPP  
FVGHC GADCGWDRGEVCRVCQNKLFESI QEGKYEFPDKDWAHISSEAKDLISKLLVRDAKQRLSAAQVLQHPWVQ  
GQAPEKGLPTFPQVLQRNSSTMDLTLFAAEAIALNRQLSQHEENELAEPEALADGLCSMKLSPPCKSRLARRRAL  
AQAGRGEDRSFPPTAL



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**FIGURE 461**

CTAGTCTTTT CAGCCTTCAGGCTGTTTTTGGCTTGAAGCTCTCTTGGCCTCCTAGTTTCTACCTAATCATGTCCTT  
GGTGGAGGCCATCAGCCTCTGGAATGAAGGGGTGCTGGCAGCGGACAAGAAGGACTGGAAGGGAGCCCTGGATGC  
CTTCAGTGCCGTCCAGGACCCCCACTCCCGGATTTGCTTCAACATTGGCTGCATGTACACTATCCTGAAGAACAT  
GACTGAAGCAGAGAAGGCCCTTTACCAGAAGCATTAAACCGAGACAAGCACTTGGCAGTGGCTTACTTCCAACGAGG  
GATGCTCTACTACCAGACAGAGAAATATGATTTGGCTATCAAAGACCTTAAAGAAGCCTTGATTGAGCTTCGAGG  
GAACCAGCTGATAGACTATAAGATCCTGGGGCTCCAGTTCAAGCTGTTTGCCTGTGAGGTGTTATATAACATTGC  
TTTCATGTATGCCAAGAAGGAGGAATGGAAAAAGCTGAAGAACAGTTAGCATTGGCCACGAGCATGAAGTCTGA  
GCCCAGACATTCCAAAATCGACAAGGCGATGGAGTGTGTCTGGAAGCAGAAGCTATATGAGCCAGTGGTGATCCC  
TGTGGGCAAGCTGTTTCGACCAAATGAGAGACAAGTGGCTCAGCTGGCCAAGAAGGATTACCTAGGCAAGGCGAC  
GGTCGTGGCATCTGTGGTGGATCAAGACAGTTTCTCTGGGTTTGGCCCTCTGCAACCACAGGCAGCTGAGCCTCC  
ACCCAGACCGAAAACCCAGAGATCTTCAGGGCTCTGGAAGGGGAGGCTCACCGTGTGCTATTTGGGTTTGTGCC  
TGAGACAAAAGAAGAGCTCCAGGTCATGCCAGGGAACATTGTCTTTGTCTTGAAGAAGGGCAATGATAACTGGGC  
CACGGTCATGTTCAACGGGCAGAAGGGGCTTGTTCCCTGCAACTACCTTGAACCAGTTGAGTTGCGGATCCACCC  
TCAGCAGCAGCCCCAGGAGGAAAGCTCTCCGCAGTCCGACATCCAGCTCCTCCTAGTTCCAAAGCCCCCTGGAAA  
ACCCAGCTGTCAACCAGGCCAGAAACAAAAGAAGAGCCTAAGGAAGTGAAGCTCAGTGTTCCCATGCCCTACAC  
ACTCAAGGTGCACTACAAGTACACGGTAGTCATGAAGACTCAGCCCGGGCTCCCCCTACAGCCAGGTCCGGGACA  
GGTGTCTAAGAACTGGAGCTCCGGCTGGAACACACTAAGCTGAGCTATCGGCCTCGGGACAGCAATGAGCTGGT  
GCCCCTTTCAGAAGACAGCATGAAGGATGCCTGGGGCCAGGTGAAAAACTACTGCCTGACTCTGTGGTGTGAGAA  
CACAGTGGGTGACCAAGGCTTTCCAGATGAACCAAGGAAAGTGA AAAAGCTGATGCTAATAACCAGACAACAGA  
ACCTCAGCTTAAGAAAGGCAGCCAAGTGGAGGCAC TCTTCAGTTATGAGGCTACCCAACCAGAGGACCTGGAGTT  
TCAGGAAGGGGATATAATCCTGGTGTTATCAAAGGTGAATGAAGAATGGCTGGAAGGGGAGTGCAAAGGGAAGGT  
GGGCATTTTCCCCAAAGTTTTTGTGTAAGACTGCGCAACTACAGATTTGGAAAGCACTCGGAGAGAAGTCTAGGA  
TGTTTTACAAACTACAAAGCTGAAGAAAATGAAGCCCTATTACTTGTTTGTAAAGATTTAGCACCTTCTGCTGTA  
TACTGTACTGAGACATTACAGTTTGGAAAGTGTTAACTATTTATTCCTGTAAAATTTAACCTACTAGACAATGA  
TGAGAGTACCCAGGATGATTTCTGGGGCAGAGTGGGTGAGGAGATGGGGACAGGTGAATGGAGGAGTTAGGGGA  
GAGGAAAAGTGATGGAAGTGCTGGAAAGGGCACGAGAGAGTCTTCCAGGTACTGATCCTGTTTCTTGCTCTGA  
GTGCTAGCTAGCCAGCTGTGTTACACTGTAAACATTCAAGCTGTACATTTGGTGCACTTTTCTGTGTCATA  
CCACAATAAAAAAAACCTATCATCATCTTACAAAACAAGACACCCAAGTCCAGGCCCAAGGAGTAAGTACAAA  
TATTCCTGTTTCTGAACCATTACTGTAATTGGCTCTTAAGGCTTGAAGTAACCTTATAGGTTACTCATAAGGCAT  
ATACAAATAAACTTGTTTGTCTTTTCTTTTTC

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**FIGURE 462**

MSLVEAISLWNEGVLAAADKKDWKGALDAFSAVQDPHSRICFNIGCMYTILKNMTEAEKAFTRSINRDKHLAVAYF  
QRGMLYYQTEKYDLAIKDLKEALIQLRGNQLIDYKILGLQFKLFACEVLYNIAFMYAKKEEWKKAEEQLALATSM  
KSEPRHSKIDKAMECVWKQKLYEPVVIPVGKLFERNERQVAQLAKKDYLGKATVVASVVDQDSFSGFAPLQPQAA  
EPPPRPKTPEIFRALEGEAHRVLFGFVPETKEELQVMPGNIVFVLKKGNDNWATVMFNGQKGLVPCNYLEPVELR  
IHPQQQPQEESPQSDIPAPPSSKAPGKPKQLSPGQKQKEEPKEVKLSVPMPTLKVHYKYTVVMKTQGPLYSQV  
RDMVSKKLELRLEHTKLSYRPRDSNELVPLSEDSMKDAWGQVKNYCLTLWCENTVGDQGFDPDEPKESEKADANNQ  
TTEPQLKKGSQVEALFSYEATQPEDLEFQEGDIILVLSKVNEEWLEGECKGKVGIFPKVFVEDCATTDLESTRE  
V

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**FIGURE 463A**

CAAGATACCCTCCAGGCCCTCATCACCTTTTTTCAAGTCAAGATTTTCATCCCATACATGCATGACTCAATCAGAT  
TTGGAAATGTGGATATGCCCTGTCGTCCAAGGCCAATATAGCCCTTCCCTCCAGGTTCCAGTTATGCGGTGCTC  
AGACATACAGCTCGGAATACACCACGGAGATCATGAACCCGACTACACCAAGCTGACCATGACCTTGGCAGCA  
CTGAGATCACGGCTACAGCCACCACGTCCCTGCCAGCATCAGTACCTTTGTGGAGGGCTACTCGAGCAACTACG  
AACTCAAGCCTTCCTGCGTGTACCAATGCAGCGGCCCTTGATCAAAGTGGAGGAGGGGCGGGCGCCAGCTACC  
ATCACCATCACCACCACCACCACCACCACCACCATCACCAGCAGCAGCATCAGCAGCCATCCATTCTCTCCAG  
CCTCCAGCCCGGAGGACGAGGTGCTGCCAGCACCTCCATGTACTTCAAGCAGTCCCCACCGTCCACCCCA  
CGCCGGCCTTCCCCCGCAGGCGGGGCGTTATGGGACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCG  
GCCCGCTGCTGGACCCGCCGATGAAGGCGGTCCCCACGGTGGCGGGCGCGCTTCCCGCTCTTCCACTTCAAGC  
CCTCGCCGCCGATCCCCCGCGCCAGCCCGGCCGGCCACCACCTCGGCTACGACCCGACGGCCGCTGCCG  
CGCTCAGCCTGCCGCTGGGAGCCGAGCCCGCGGGCAGCCAGGCCGCGCGCTTGAGGGCCACCCGTACGGGC  
TGCCGCTGGCCAAGAGGGCGGCCCGCTGGCCTTCCCGCTCTCGGCTCAGCCCTCCCTACCGCGTCCAGCC  
TGCTGGGCGAGAGTCCCAGCCTGCCGTCGCCGCCAGCAGGAGCTCGTCTGCGGAGGGCACGTGTGCCGTGT  
GCGGGGACAACGCCGCTGCCAGCACTACGGCGTGC AACCTGCGAGGGCTGCAAGGGCTTTTTCAAGAGAACAG  
TGCAGAAAAATGCAAAATATGTTTGCTGGCAAATAAAACTGCCAGTAGACAAGAGACGTGAAAACCGATGTC  
AGTACTGTGATTTTCAAGTGTCTCAGTGTGGAAATGGTAAAGAAGTTGTCCGTACAGATAGTCTGAAAGGGA  
GGAGAGGTGCTCTGCCTTCAAACCAAAGAGCCCAATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTC  
CAATCTGCATGATGAATGCTCTTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATTCCAGATACT  
GTCCCACTGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCCTGACAGCCTCCA  
TTGATGTATCCAGAAGCTGGGCAGAAAAGATTCCGGGATTTACTGATCTCCCCAAAGAAGATCAGACATTACTTA  
TTGAATCAGCCTTTTTTGAGCTGTTTGTCTCAGACTTTCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGT  
TCTGCAATGGACTTGTCTGATCGACTTCAGTGCCTTCGTGGATTITGGGAGTGGCTCGACTCTATTAAAGACT  
TTTCTTAAATTTGCAGAGCCTGAACCTTGATATCCAAGCCTTAGCCTGCCTGTCAGCACTGAGCATGATCACAG  
AAAGACATGGGTAAAAGAACCAAAGAGAGTGAAGAGCTATGCAACAAGATCACAAGCAGTTTAAAGACCACC  
AGAGTAAGGGACAGGCTCTGGAGCCACCGAGTCCAAGGTCTGGGTGCCCTGGTAGAACTGAGGAAGATCTGCA  
CCCTGGGCCTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCT  
TCCTGGACACCCTACCTTTCTTAATCAGGAGCAGTGGAGCAGTGAAGCTGCCTCCTCTCCTAGCACCTGCTTGTCTAC  
GCAGCAAAGGGATAGGTTTTGGAACCTATCATTTCCTGTCTTCTTAAAGAGGAAAAGCAGCTCCTGTAGAAAGC  
AAAGACTTTCTTTTTTTTCTGGCTCTTTTCTTACAACCTAAAGCCAGAAAACCTTGCAGAGTATTGTGTTGGGGT  
TGTGTTTTATATTTAGGCATTGGGGGATGGGGTGGGAGGGGGTTATAGTTTATGAGGGTTTTCTAAGAAATTGCT  
AACAAAGCACTTTTGGACAATGCTATCCCAGCAGGAAAAAAGGATAATAACTGTTTTAAACTCTTTCTGG  
GGAATCCAATTATAGTTGCTTTGTATTTAAAAACAAGAACAGCCAAGGGTTGTTGCCAGGGTAGGATGTGTCTT  
AAAGATTGGTCCCTTGAAAATATGCTTCTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAACTTCCTT  
TTAATTTCTTCTTCTTTATTTTAAACAAATGGTGAAAGATGGAGGATTACCTACAATCAGACATGGCAAAACAA  
TATGGCTGTTTGCTTCATAACAGCTGCAATTTTTAAAGTGTGTCTTACTAAGTCTTGTTATACTCTCTTATCTA  
TATGCCGGAATAAAAAGGAGGCAGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTTACC  
TTCCCTGTGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCCTGCC  
CTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTGGATTACATGTAAGTGTGTTTGGTTGTGTTCTAT  
CAACCCACCAGAGTTCCCTAAACTTGCTTCAGTTATAGTAACTGACTGGTATATCATTTCAGAAAGCGCCATAAGT  
CAGTTGAGTATTGATCCTAGATAAGAACATGCAATCAGAGGACTGGTCATACAGGGTAAGCACCAGGGACAATAA  
GGATTTTTATAGATATAATTTAATTTTTGTATTGGTTAAGGAGACAATTTTGGAGAGCAAGCAAATCTTCTTTT  
TAAAAATAGTATGAATGTGAATACTAGAAAAGATTTAAGAAATAGTATGAGTGTGAGTCATAGGAAGGATTAGT  
GGGCTGCGTTTTCAACATTCCGTGTTCTGACTCCCTTTTGTATGTTTCTACTGTTAATGCCATATTACTATGAGAT  
AATTTGTTGCATAGTGTCTTATTTGTATAAACATTTGTATGCACGTTATATTGTAATAGCTTTGCCTGTATTTA  
TTGCAAGACCACCAGCTCCTGGAAGCTGAGTTACAGAGTAATTAATGGGGTGTTCACAGTGACTTGGATACACC  
AATTAGAAATTAATAAGCAAATATATATATATATATAAATATAGCAGGTTACATATATATATTTATAATGTG  
TCTTTTTATTAACATTTGTACAATAAATGTCACTTCCCATGCCGTTATTTTATGGTTCAATTTGCAGTGACTTTT  
AAGGCAGTACTGTTTAGCACTTTGATATTAATAATTTTGCTTATGTTTTGCTAAATTCGAATAATGTTTGAAGATT

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**FIGURE 463B**

TTTAGGTCTAAAAGTCTTTATATTATATACGCTGTATCAAGTCAAAATATCTTTGGCCATTTTGCTAAGAAACAA  
ACTTTGAATGTCAAACGTGATGTCACAGTAGTTTTTGTAGCTTTAAATCATTTTGTCTTTAGTCTTTTAAAGGA  
AAATAACAAAACATATGCTGTTTATATTGCATTAATTATACAATCAAACAAATGCCAAATGAATTGCCTAATTGCG  
CAAGATAACCCAGATAGGAAATCATATGTTTTTTTCCAAGAGTCATTCTAATATTTGATTATGTTATGTGTGCTT  
TTATGAAAGATTGTTATTTTATATATCAAGATGATAGAACCTGGAATGTTAGGATTTTGAAATGTTAGACTTGG  
AAGGGCCTGGTCTGTCAACTAGTCCAACCCCTTAAATTCATAGAGGACGAAACTGGGGCCCAATTGAAGGGTG  
AAGAGTTACTCAAGGTCAAACAGCTGGTAACAGAAATCAAGACTAAGACCTAATTTACCTTTCCATACTCTTTTTT  
TTTCTCAACTTCATCTATATAAAATCAGGCTTTTAAACATAACCACTAATATTTACCTGAAGATAACCATGAGTA  
AAGTATACTTTTGCATTAATTTTTTGAGTATATGCAAACATAATAAATATTATTAAATATCAAGGAAAGCTAACA  
TTTCATACAAGATAGCTTCAGACCAAATTCAAATTGAATTTGAATAAATTAGAAATACTGTGCATACATAACCTT  
CTTGTCACCATGAGTATTTGGAAAGTTAATCCTTGTTTTGTGCTGTCTATAGAGAACAACAAATAAAAACAG  
AGCCCTAGAGAAATGGCGTTACTTTTTATTTTTACACCCATCAGATTTAAGGAAAAGACTTTTTAGCCATTATAA  
TCTAGTGGTTGGAAGGAATGAAGAAGCTTTTTTAGTAATAGGTCCAGATATGAGTGCTAAAAATAAAGATGATAG  
CATGTTCTTCTGTCTTCCATAGTTATTACAACATGAGAGCCTCCCAAGTCATCTTATCAACTCAACCCCTTTT  
TTTTGTCTTAATGTTGCACATAAGTTTATACAGAGTGGATGACCACACTAGCACAGAAGAGAACAACATGTATTA  
AAGCAGGTGATTCCCTCCCTTGGCGGGAGAGCTCTCTCAGTGTGAACATGCCTTCTGTGGGCGGAAATCAGGAAGC  
CACCAGCTGTTAATGGAGAGTGCCTTGCTTTTTATTTCAGACAGCAGAGTTTTCCAAAGTTTCTCTGCTCCTCTAA  
CAGCATTGCTCTTTAGTGTGTGTTAACCTGTGTTTGAAAGAAATGCTCTTGTACATTAACAATGTAAATTTAAA  
TGATTAAATTACATTTTATCAATGGCA

**FIGURE 464**

[illegible]

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**FIGURE 465**

GCCAGAAAGCATTCTTTTCACTTTTACTCTGTATTTCATGCTATTGAAAGTTGCTTCTGTCAGAGGAAACAAACACTG  
TGATTGAGGAAATATTGATGAATTTTAAATGACAAGGAAATTGCCACATTGACAGAATTTTGGTCCATCTATTTA  
AAGATGATTTTTTGAAGATATGCATAAGACTCATATTCTGACAAGTTTCACAGAACAATTCAGAGGTTATTAC  
CAAGAGGATCCCACTGAAATCATCAGCCTGCCTTTTTAAAAGAAAAATATTGTTTAGTGAAATAATAAATATGAA  
GCTCTGATTTTTAGCAAAGAATTGTGAGTGTCTTACTGGATTTTCTTCTTTGCTTTTTAGCTGTATGACAAAATTA  
ACACAAAGTCTTCACCACAAATCAGGAATCCTCCAAGCGATGCAGTACAGAGAGCCAAAGAGGTATTGGAAGAAA  
TTTCATGTTACCCTGAGAATAACGACGCAAAGGAATAAAGCGTATTTAACACAACCTCATTTCATGGCCTTAC  
TTCAGACTCACGACGTAGTGGCACATGAAGTTTACAGTGTGAAGCATTGAGGGTCACACCTCCTCCACCTCTC  
CCTATTTAAACGGCGATTCTCCAGAAAGTGCTAACGGAGGCATGGATATGGAGAATGTGACCAGAGTTCGGCTGG  
TACAGTTTCAAAGAACACAGATGAACCAATGGGAATCACTTTAAAAATGAATGAACTAAATCATTGTATTGTTG  
CAAGAATTATGCATGGGGGCATGATTCACAGGCAAGGTACACTTCATGTTGGTGATGAAATTCGAGAAATCAATG  
GCATCAGTGTGGCTAACCAACAGTGGAACTGCAAAAAATGCTTAGGGAAATGCGGGGGAGTATTACCTTCA  
AGATTGTGCAAGTTACCGCACTCAGTCTTCGTCTGTGAGGACTTGCCATCAACTACCCAAACCAAAAGGACGAC  
AGATCTATGTAAGAGCACAATTTGAATATGATCCAGCCAAGGATGACCTCATCCCTGTAAAGAAGCTGGCATT  
GATTTCAGAGTTGGTGACATCATCCAGATTATTAGTAAGGATGATCATAATTGGTGGCAGGGTAAACTGGAAGAACT  
CCAAAAATGGAAGTGCAGGTCTCATTCCTTCTCTGAAGTTCAGGAATGGCGAGTAGCTTGCCATTGCCATGGAGA  
AGACCAACAGGAGCAGCAGGCCAGCTGTACTTGGTTTGGCAAGAAAAAGAGCAGTACAAAGATAAATATTTGG  
CAAAGCACAATGCAGTGTGTTGATCAATTAGATCTTGTACATATGAAGAAGTAGTAAACTGCCAGCATTCAAGA  
GGAAACACTAGTCTTATTAGGCGCACATGGTGTGGGAGAAGACACATAAAAAACACTCTCATCACAAAGCACC  
CAGACCGGTTTGGCTACCTATTCCACATACAACCAGACCTCCAAAGAAAGACGAAGAAAAATGGAAGAATTATT  
ACTTTGTATCTCATGACCAATGATGCAAGACATCTCTAATAACGAGTACTTGGAGTACGGCAGCCACGAGGATG  
CGATGTATGGGACAAAACCTGGAGACCATCCGGAAGATCCACGAGCAGGGGCTGATTGCAATACTGGACGTGGAGC  
CTCAGGCACTGAAGGTCCTGAGAACTGCAGAGTTTGCTCCTTTTGTGTTTTTCATTGCTGCACCAACTATTACTC  
CAGGTTTTAAATGAGGATGAATCTCTTCAGCGTCTGCAGAAGGAGTCTGACATCTTACAGAGAACATATGCACACT  
ACTTCGATCTCACAATTATCAACAATGAAATTGATGAGACAATCAGACATCTGGAGGAAGCTGTTGAGCTCGTGT  
GCACAGCCCCACAGTGGGTCCCTGTCTCCTGGGTCTATTAGGCCCTCTCCCAGATATCTGAGCATAACTGGGAGC  
ACCTCATTGTGGAAAGCCTCTTTGTTATCGGCCTTGTGTGTCAGCAGGTCATGGTCCCTAGAGACTACCTAGTTG  
TAGTGTGACCTACATTTATAATTATTGTCATGTCCGAATAGATAGGAGGAGAAAAACAATTACACACTAATTTAA  
AGAGACAGTATCTTTTTTAATCAGTTCTCCTAACTTTAATAAAATGTATCTTTAAATGTATGTATTATTCAATC  
CTTTGGAATGTTATATTTTTGGAAATCATAGCTTTTTATTTCGAAGGCCCTAAAAACTGCACAAAATAGATGCT  
GCTTTCTATAATCTATTTTAAATAATAATAACAATGATTCTGTTACCTTGACTGGGGGTGGAACACTACATTCTT  
TTTAGAGTCTGATTTTATGGATTGGAATATTGGGATATCTTTCTTTCTTTTATTTTATTTGAAATAATTAGTGTAG  
TGATTACAAAACAGTCATAAATTTTTAAAGGCCTTTTTCTCTCTTTTTTTTTTTTAGAATAGTATTTTTTTT  
TAAGTCCTTTATGTAAATCCAGATAATGTGATACTGTCTCTTTGAAGCACCTGTAAACCTTTTAGAGATTGGA  
AGTTGGGTCTTGACTCTTAATGCATGTGGACAGTCGCGAGCGTTTATGCTGTGCGGTGTGTCTGTGTTGGACAAAA  
CAATCTGTAATCTACAGCAAAGTACATTCTACATTCCGTTTCATGGGGCACACCCAGGGGAATAAGAATAAAATGC  
TATTATGACTAAGTTGTAAACCTATGCACATCCCTTGCATTTTGGGCAACTTTATAAAAAAAGAAACTGATTT  
TTATTAATAATAATCATGTAGTGAAATGTGTTTGT

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**FIGURE 466**

LYDKINTKSSPQIRNPPSDAVQRAKEVLEEISCYPENNDAKELKRILTQPHFMALLQTHDVVAHEVYSDEALRVT  
PPPTSPYLNQDSPESANGGMDMENVTRVRLVQFQKNTDEPMGITLKMNELNHCIVARIMHGGMIHRQGLHVGDE  
IREINGISVANQTVEQLQKMLREMRGSITFKIVPSYRTQSSSCEDLPSTTQPKGRQIYVRAQFEYDPAKDDLIPC  
KEAGIRFRVGDIIQIISKDDHNWWQKLENSKNGTAGLIPSELQEWVACIAMEKTKQEQQASCTWFGKKKKQY  
KDKYLAKHNAVFDQLDLVTYEEVVKLPAFKRKTLVLLGAHGVGRRHIKNTLITKHPDRFAYPIPHTRPPKKDEE  
NGKNYYFVSHDQMMQDISNNEYLEYGSHEDAMYGTKLETIRKIHEQGLIAILDVEPQALKVLRTAEFAPFVVFIA  
APTITPGLNEDESQRLQKESDILQRTYAHYFDLTIINNEIDETIRHLEEAVELVCTAPQWVPVSWVY

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**FIGURE 467**

GGCACGAGGCCGTGTGGTCAGGCTGGTCTCAAAC TCCTGACCTCAGGTGATCCGCCCCGCTCAGCCTCCCAAAG  
TGCTGAGATTACAGGTGTGAGCTACCGCACCCCGCGAGGTTAGCACTTTCATCACCAAAGACCCCGTGCCCTCTC  
GTGGTCCTTTT GAGGGATCCCGCCGCCACCACCCCTTGTATTTTATCACGTGCTCTTCAGGGCATGTGGAATTCGTT  
GAGTTTGCTTTTAGAGCCAAGTTTCTTTCCCTGTGTGGGTTTTT GAGGAAAACCTGAGGTCCCTAATCTGTGGC  
CACCACCCCCCCCCGCGGCCACGCCTTAGAGCAGAGCAGCCCTCCTCTCATTGTTGTCAGAAACAGTCAAGAG  
GAACCATTGGCCTAGAGCTCCTGTGACCGAGAGCGCCACGGAAGCCTGGGGATGATGTCGGGCAGCTTTATTCTT  
TGCTTGGCTTTTGGTAAGTGGTGGTCCCTCAAGCATCCTCAGTTCCTCTTGCTGTTTATGAATCTAAGACAAGG  
AAGTCCTATAGAAGCCAAAGGGACAGGGACGGAAAGGACAGGTCCCAAGGGATGGGGCTGTCTTTACTTGTGGAA  
ACCAGGAAATTGCTCCTCTCAGCCAACCAAGGTTGACCACACACCACCTTCCGGAGCAGCTCAGTCAGCCCTCG  
GGGACGAGAAACCACAAGCGCAGAGACGCTGAGGCCCAGGCAGGTGAAGAGGAAGTGGCTTTGGGTTTTTAAAGT  
AGGTGAGCGTGAGCCTCTCTGACTGCTTCTTCCCCGGGGGGGACTGCAAACCGCTCAGGGTTGCGGCAGAGCCAT  
GGACTTCCGGTCCCTGCAACGGGTGACCTAAGCGTGGTGCACCCATCAGTCACGCAGGAGGACTGACTTGACAGA  
CGAAAGACAAGCCCGGATGACACAGGGTGAGAAGAGTCAGGGCCGCACCTCTGTCCCTGCAAACCAACAGGTGCA  
TGGTGAGTGTGGCAGTCCCCACAGCTCCACAATGGGCTCCCCCGCCAAACGGGGACGACAGGGATCTTCAGGAAC  
TCTGACCTCACCAAGTCAAGTGGACCACTCTCCACTCCACGAGGATGTGAAACGGTTCTTTAAAATGGGATTTTA  
GAGCCTCGGGAATGCATGTGCGTCGCATCTTTCATATTATGGGTGAGGATAGATTTCATTTCTTGCAACATAGTGG  
AAAAGATATAAGCTGCAGTAATTTGCTCTTTGAATGACCGTCACCCCCAGTATAGGATATGCTTGTATCCCCCG  
TCACTCCTCCGCTGTTTTTTAAACTTTTCCACCACCTGCGTCCAAAAAGAATGTTATAGCGAGTGCTCTTAAAT  
GTTGAACCTGGGTGTTTGCTTCCGGGCCAGTCTGCGTGGCTCCATGAAAAGCTCACTGCTGCCCCAGCCGGGCTTC  
TTAGAGGAGGTCAGTTGTCCTATGTATCATCATTTTACTCTGGGAATCCTACTGTGAAATCATGTCTGTATTTTTC  
TGGAGCAGTTCACATAGAGTAGAATGTGGAATTTCCCGTGAACGTCCTTCCCTCCCCGATCTGCCGCCTGTC  
ACTTCGCCACCGTGCTAGAATACTGTTGTGTGTGTAAGATGACTAATTTTAAAAGAACCTGCCCTGAAAAGTTCTT  
AGAAACGCAATGAAAGGGAGGAACCTGTCTTTTACCAGTTTTTCTTTGTAGGATGGGAAAGTATAAAAAGGCA  
CAGAAGGTTGTCATGGGCTGTTTCTTGGGGGTTTTTATCCTGCTCACCGTGAGATAAGCCTGCGGCTTGCTTAA  
CCAGCGCAGCGCAAAGGTCTCAATGCCTTTTGGTAACATCCGTCATTGCAGAAGAAAGTTTACACGACGTCAAAA  
AGTGACGTTTCATGCTAAGTGTTTTTCCAGAAATATGGTTTTCATGTTTCTTATTGGCTCTGCCTCCTGTGCTTAT  
ATCATCCAAAAACTTTTTTAAAAGGTCCAGAATTCATTTTAACCTGATGTTGAGCACCTTTAAAACGTTTCGTAT  
GTGTGTTGCACTAATTCTAAACTTTGGAGGCATTTTGCTGTGTGAGGCCGATCGCCACTGTAAAGGTCCTAGAGT  
TGCCTGTTTGTCTCTGGAGATGGAATTAAACCAAA TAAAGAGCTTCCACTGGAGGCTTGATTGACCTTGTAAC  
ATATGTTAATCTCGTGTTAAAATAAAATATAACTTGTGAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 468**

MTQGEKSQGRTSVPANQQVHGECGSPHSSTMGSPANGDDRDLQELLTSPSQVDHSPLHEDVKRFFKMGE

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**FIGURE 469A**

GACCCAAGTACGTCAGGGCTCCACGGTACTGTTTTCTTTCCTCCTAGGAAGATGGGATTTCTTTTGTCCAAGCA  
CTGAAGGAACCGACCCAAACCAGTCTTGGGGGCTCTGATAAGATTTTCAGACTCTGGACCTTTTCCATCAGGCAG  
TGTCTCTGCTGTATCATCCAGTTTTGCAGAGGTACTTGCAAGCCATCTGACCTCTCTCTTTTTTTCTTTCAGT  
GCTGGAGGGCAGTTATCTCAGGGTTCCAATTTATCCATTAATACCAACCAAAACATCAGCATCAAGTCCGAACCG  
ATTTACCTCCTCGGGATCGTATGACCCCATCGGGCTTCCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCCGCCG  
CCACCACCGCAGCCCCAGCCACAACCCCCGAGCCCCAGCCCCGACAGGAAATGGGGCGCTCCCCTGTGGACAGT  
CTGAGCAGCTCTAGTAGCTCCTATGATGGCAGTGATCGGGAGGATCCACGGGGCGACTTCCATTCTCCAATTGTG  
CTTGGCCGACCCCCAAACACTGAGGACAGAGAAAGCCCTTCTGTAAAGCGAATGAGGATGGACGCGTGGGTGACC  
TAAGGCTTCCAAGCTGATGTTTGTACTTTTGTGTTACTGCAGTGACCTGCCCTACATATCTAAATCGGTAAATAA  
GGACATGAGTTAAATATATTTATATGTACATACATATATATATCCCTTTACATATATATGTATGTGGGTGTGAGT  
GTGTGTGTATGTGTGGGTGTGTGTACATACACAGAATCAGGCACCTTACCTGCAAACTCCTTGTAGGTCTGCAGA  
TGTGTGTCCCATGGCAGACAAAGCACCCCTGTAGGCACAGACAAGTCTGGCACTTCTTGGACTACTTGTTCGTA  
AAGATAACCAAGTTTTTGCAGAGAAACGTGTACCCATATATAATTCTCCACACTAGCTTGCAGAAACCTAGAGGG  
CCCCCTACTTGTTTTTATTTAACTGTGCAGTGACTGTAGTTACTTAAGAGAAAATGCTTTGTAGAACAGAGCAGTA  
GAAAAGCAGGAACCAAGAAAGCAATACTGTACATAAAATGTCATTTATATTTTCCAACCTGGCATGGGTGTCTGT  
TGCAAAGGGGTGCATGGGAAAGGGCTGTTGATATTAAAAACAAACAAAACAAAAAGCCCCACACATAACTGTTT  
TGCACGTGCAAAAATGTATTGGGTCAAGAAGTGATCTTTAGCTAATAAAGAAAGAGAATAGAAAACACGCATGAG  
ATATTCAGAAAATACTAGCCTAGAAATATAGAGCATTAAACAAAGTAAAATTAATATATTAAGTTATAATTGGAAT  
ATGTCAGAAGTTTCTTTTTACATTATATCTTAAAAATTAAAGAACTGATTTTAGCTCATGTATATTTTATATG  
AAAGAAAACACCCTTATGAATTGATGACTATATATAAAATTATATTCACTACTTTTGAACACATTCTGCTATGAA  
TTATTTATATAAGCCAAAGCTATATGTTGTAACCTTTTTTTAGAGAATAGCTTTATCTTGGTTAACTCTTTAGT  
TTTATTTTAAAGAGGGGAAAACAAAAATATCTTGCAAGCAGAACCTTGAAAAAAGCCATGAACACTTATTC  
TAAATGTAAATTAAAAGTTGAGCCAACTCTTTGTGTATATAGCATCTTAAATATATTATCACCTTTGATGTAAG  
TACCTATGTATTGTATGGTCAACAGATTAAAAAGTATATTTTTGTGGATTGCCGCCAATCTGGGGGGAAAAGGCG  
AGGTCCTTTATTAAGTATTCACTGTCTAATATTTACTATTTTGGTAAATATACTGTACTTTGGATTTTAATTATT  
AGGCCAGTGTTTTAGAGGATTGTATTAAGGGGTTTCTCCCCTCACTGGTGGGGGAATGTGTGATGGTTACAATG  
GAATCTTCGGGGCTGTTTGGGTGAGCATCAAXATATTTTTTGGGTGTGGTCAATAAATTGGAAAGGGGCAAA  
AAAAATTGGGGGTTAAGTCCAACCCGAATAAGAATAAAATGTGTTTGTAAACAAGATTTAATAAGCCATTATTTAA  
AACTTCCCTTTTGTGXGGXXXAAATGTAGAAGAXAAACCTGACCTAATTTAATTAATATXAGAGAAAAATGCCAAA  
ATAGXAGATGAGCCCAAAGGTTTAAATAAGTGGTAAATGATTAGGGGAAAATAATCATGGGGAAAGGGATCTTTTT  
TCCTTGACCTCTGAAAACAGAACGATGCAGCTGGTTACAAAATCCTACCGTTATCAGCTCTTCTGCACATTGCA  
GTGATGCTTTGGTATGCGGGGAGAAACACTCTTAGGGTGCCGTCCTTGGCATGACTCTTGCCATTCTAATTGGA  
ATTAGTGCCACCCTCAGCTTGGATTTTGAACAAGCCTTATTCTTTTCAAGGAAGACAATAATGGATGATAGCAAGT  
TCATCCACTTACTGGGCTTGTGCCATGAGCAAAATTCAAAGTCCTGTATATCTTTTATTGTAGATTTTTTAAATAC  
TCCTTTTCTTAAAAACTCAAGGGTTTAAAAATTGCTATTTTATATTTTAAATGATATTGAGCAGCTACCTACAA  
TTTCTATGTACATTTTGTTCACCCCCCACCACCACCCCCAAATTACGTTTCTTTTGACATTTTCTCATCTGCTG  
TTTGTGACAAGTATCAGCCAGATTTTCTGACTGACACATAGGTATGATCAGTGCAGGAGAGACCTGCGCACCAC  
AGGCTGCAAACTGGAGGTTCTGTTCTCATGGCAGGTTGGGCAGTAACTTTTGAGAGAGGCCAAAAAAGGAGGAT  
GACATGCTGTCTCCTCTCTTCAGATAGACATTAGGCTCTTATTCAGAAAGGATTTTTCTTTAAAAATGTACTTAC  
TTTACTGAACTACTTACAGGCACATTTCTTCATAAGGCCACACCTAATCCAAACAAGACAGTCTCCCAACACTGA  
AGTTCCAAAATAATCCTTACCCTTTGTAAACCATTTATAGCTTTGAAAGTGTTAAGTGATTCTTCGTTATTAT  
TTATGCATGTTTCATGAACCTTCTGCTGGACATTGGAATAGGAGTTAACACATTACATTTACTGTCTATTTTCTTG  
GGTGCTTATGAGATGGCCXCTGACAGTACTCCAATAGTCTTTCTXGCTACGCAGGXXXATAATCAGCACAAC  
TACTGCTTTCTAGAATACTACTCAAGGCTCGGCGTTGGGTTTAAATTACACTGCACCAGGTAACAATGAACT  
CCATTTTCAGGAAGTGAATATTTGACTGTAAACCTTTTCCCATACGTCCAGTGTGGCATGGAGCATATGGACTTG  
ACAGACATCTCTACCCAGACGCCACGTTGTAACACACCCACATCCACATCTCTGGGTGGAAACCAGCCTAGAG  
AGGGGACGACGCTAATGGTGTTGCTTTAGAACCCTTTTCTTACCCTTTTAGACTCGTGTGTTTGTGTGAGACAC  
CATTGCAAGAAAATTTTATCCCTCCAGAAGTATTTTATTACTAAAGAACAAAAGCAAAAAAGCTTAAATTGCAC

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**FIGURE 469B**

TGGTTAAAGTACAGTTTCCAACAGCTGTCCTTCCTCAGTACTCTAATGGCCACTCCACCGCGAGTGGAAGTCACT  
GTTGTGTGTACACAGGTGGTCCCAATCAAACTTCATCTTGTGAGCCCAATTATGTCCATTTTGTATAGACTAA  
ATCAGGGGTTTGTCTACAAGAACAATACATGTTTTACCTTTTCTTTAACTAGAAAGGATAACTAGTAATGCATC  
AACATAATTTCTGTATTAAACCATCATGCGCACAAAGAAATACATAGGAAATAAGGAAGAAGAAAACCTCCTGGCATC  
GGATCTTAAGCTAGATGATTAGAATGTGAAAAAGATTTTACAAATGTAAAACCTTCTATTTCTCTGTAGAACTTT  
CTTCACTTTGCTGTGCAAGAAGACACTGCTTTGCTATATTCAAATGGCTTTTCTTACAAGAGATTTATGTATTT  
GGTAAATGTTTGTAGTCAACAGTTCACACAAGAAGCTGTACACGGTTTGATCATGTAAAACCGTTTGGCGGCACA  
AGCTGGACTTTGTTGCCATCCTTGAGATGAACCTTTTAAGAAAAATAAGTTAATCTCAATTTTCCCTGAATGTG  
TTGTTTTTCTTCATTATACAATAAATATAATAGTGAACTTTTATCAAATGGTGAAGACAATGCTAAAGGTTGTT  
GCAAACTGTTTGTCTCCCGCACTCACTCCAGTAAAGACGGACTGGCTCTTCTGTGCGTCGAGACTCTGTCACGT  
TTGCCTGGGGACACAAGGCGCTGGCTTTGCCACCAGGCAGCCCTTCCCCTAAAGCCCTCTCCTTTTTTCATTCCT  
TTCACGAAGACCTTCTTCACCCGCAGGCTTCTTCTCTGGGTTGAGACAGGGCCAAGGAAACCGTCCCAACGCCC  
CACTGGGC

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**FIGURE 470A**

GGGGTGTGTCAAGAATTAATTTTCGGAATTGGTTGGTGACAAGTGATGCTGACTTACTCAATAGCACGTATGTGCA  
TGTTGATAACCCACCGAGAAGCCGAGGAGGCAAGGCTCGCGAGAGTTTCAGGGAGGCCGCCCTGAGATTCCGGCGA  
GGCCGCGGGTCCCACCTCCCGGGGGCGGGGCGAGGCGGAGCGGGGAGAAGGGAGCTGACGGGCGCCCGGCCGC  
TGCGGTCCGTGCGGAGGCTGAGCCGGCCGCGGGCGCGACCGGAGGCAGTTCCGTTACTATGGCAATGACGGCAG  
GGACTACAACAACCTTTCTATGAGCAACCATACCCGGGAAAGAGTGACTGTAGCCAAGCTCACATTGGAGAATT  
TTTATAGCAACCTAATTTTACAGCATGAAGAGAGAGAAACCAGGCAGAAGAAATTAGAAGTGGCCATGGAAGAAG  
AAGGATTAGCAGATGAAGAGAAAAAGTTACGTCGATCACAACACGCTCGCAAAGAAACAGAGTTCTTACGGCTCA  
AAAGGACCAGACTTGGCTTGGATGACTTTGAGTCTCTGAAAGTTATAGGAAGAGGAGCTTTTGGAGAGGTGCGGT  
TGGTCCAGAAGAAAGATACAGGCCATATCTATGCAATGAAGATATTGAGAAAGTCTGATATGCTTGAAAAAGAGC  
AGGTGGCCCATATCCGAGCAGAAAGAGATATTTTGGTAGAAGCAGATGGTGCCTGGGTGGTGAAGATGTTTTACA  
GTTTTTCAGGATAAGAGGAATCTTTATCTAATCATGGAATTTCTCCCTGGAGGTGACATGATGACATTGCTAATGA  
AGAAAGACACCTTGACAGAAGAGGAAACACAGTTCACATTTTCAGAGACTGTTCTGGCAATAGATGCGATCCACC  
AGTTGGGTTTCATCCATCGGGATATTAAGCCAGACAACCTTTTATTGGATGCCAAGGGTCATGTAAAATTATCTG  
ATTTTGGTTTATGTACGGGATTAAAGAAAGCTCACAGGACTGAATTTTATAGAAATCTCACACACAACCCACCAA  
GTGACTTCTCATTTCAGAACATGAACTCAAAGAGGAAAGCAGAAACTTGGAAAGAAGAACAGGAGACAACCTGGCAT  
ATTCCACAGTTGGGACACCAGATTACATTGCTCCAGAAGTATTCATGCAGACTGGTTACAACAAATTGTGTGACT  
GGTGGTCTTTGGGAGTGATTATGTATGAAATGCTAATAGGATATCCACCTTTCTGCTCTGAAACACCTCAAGAAA  
CATAACAGAAAAGTGATGAACTGGAAAGAACTCTGGTATTTCTCCAGAGGTACCTATATCTGAGAAAGCCAAGG  
ACTTAATTCTCAGATTTTGTATTGATTCTGAAAACAGAATTGGAAATAGTGGAGTAGAAGAAATAAAAGGTCATC  
CCTTTTTTGAAGGTGTCGACTGGGAGCACATAAGGGAAAGGCCAGCAGCAATCCCTATAGAAATCAAAAGCATTG  
ATGATACTTCAAATTTTGTATGACTTCCCTGAATCTGATATTTTACAACCAGTGCCAAATACCACAGAACCCGACT  
ACAAATCCAAAGACTGGGTTTTTCTCAATTATACCTATAAAAGGTTTGAAGGGTTGACTCAACGTGGCTCTATCC  
CCACCTACATGAAAGCTGGGAAGTTATGAATGAAGATAACATTCACCCATAACCAAGAGAACTCAGGTAGCTGCA  
TCACCAGGCTTGCTTGGCGTAGATAACAATACACTGAAATACTCCTGAAGATGGTGGTGCTTATTGACTACAAGA  
GGAAATTCTACAGGATTAGGATTTCTAAGACTACTATAGGAATTGGTTGGCAGTGCCAGCTGGCTCTTTTTTTTA  
ATATTTTATTATTTTTGTTAACTTTATTATATGAAGGTACTGGAATAAAAGGAACAGACATCCCTTTCTAACTGC  
ACTGCCTACATGCGTATTAAGGTCCATTCTGCCTGTGTGTGCTGTGGCTTTGAACTGTAACACCTCTAATCAATT  
CAGGAGAAACACATATCATTTAAAGCAACATAGGCTAACCTGTAGGTAACACTGCAGTATTGATGTTTTACTGCA  
AATCTTATGGGTCTAGATAATCAGTAAAAGCCATCTTCCATAGTTGGTGTTAGAACATTGCCCTATTGGTTTGGGA  
CATCTGTAGAATATATATGAAGACAATTTCTGTAATGGTTTTAAGAGATTTAAAAAGAAATTCAGTGGTTCTTTA  
CAAAATAGAATTTATCATCAAGTTATTACACAACTTCACAGTAAGGAGTGACAAGTTTATAATAAGGAAGACAA  
AGTTTAAACACCTTCACTCAAGCACTCCACTAATATATTTACGTTGCATTTCAGAAATACTGATGACCTTCATATAC  
GTAGTCTGTATACTCATAGGGAGATGTACTGTATTATATAACATGTAAAGTTGATTTTCTTGTGACAAGAGAAT  
TCTTTTTTTAAACAAGAGGACATGGCATTATTTTAAATTTGATTATGGTGAGTTGAATTTAAGACATGACCATGAAG  
GCTGCTTGTAGAATTAGTGTATTTTTATTAACTATTTTTTTAAATGTCAAACCTTCTATCATGTAAATGGACTTA  
TAGAGAACAAAAAGCTATTTACTTTGGTTTTCTAGAAAGTTGTTACATATCATGGCTGGTTAACTTTTATTTCTT  
TTGATGAAAATTTTTCTTTTGATAGTACTTGTATTATTGTGCCATTATTTTCTTATGCTCCAAATGTACCAAAGA  
TCTTGAACAGAGTGGATGTTTCAACTGAGTAGAATTTCTTTTCCIGTGGGCATGCTGTATTTCAGACCTGACAG  
ATCTTTGATAGAGGTCAGCTTATTAAAGGGCAATATTGTTCTTGTTAGCTACATCACTGTGGTGAATATAGATG  
GAATTAAGGAAGTAAATGCAGGCCAGGGGGTTGTGATGAGAGGATAGGGGAGATAATATCAGCATCAAATCTTT  
GGGTATCTCTCTAAGAATTAATAATCTTTTCTAGCTTAATATTTTAAATCTAATTCAAACAACCTCTGAGGTTTT  
GGTTTCATTAGTAATAGTTGAGGÀATAATATACTAGCAAAGAAATGGCCTAATGTTTGTGCATAACTGTAAATGGAT  
GAAATTTTTTAAAGATACAACCATGATAACCATTATAAATGATCTATGATCAAATCTAAAGTGATGAATTATTT  
GTAGGAATGTCTTCTAATGGGGAAGAATTGCATAGGAGCATTATGCAAATCTACACAAGCTTTTATAAATGTTG  
CTGCTGGGTAGCTCCACAGTGTTCATAAGGCCATCTGTTCCTCCCAACTCCCCATTTTGGTTTGTCTTT  
TTAAATATTTGTTGAGTACTTACGTGTTTATCTAACAGTTCACCTCCATTTTTCTAGTCTGGATTTTTTGAGTAT  
TTAGGAAAGAGAGCTATTAAAACTCTGGGGATTTCTCAATGTGACTAACTCTAATTTTTCTAATTATAACTGCC  
TTTAATTAACATAATATTAACTTTTGCTGAGGTTTATGAGATTTTCTACCCACATCGCTCCCCTTTTTTTAA

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**FIGURE 470B**

AAGGACTGTTTTGCTAGTGTGATAATGAATAGGTAAGATATGAGATAATTGCAACATTGTCTAGTTCTAGTATGG  
TAACTATTCTTGAAATGGTATTGAAAAATACCGTTAATTCAAATTGACAGAGATTGATAAAAAGAACTGATTTA  
CCTAAGTTTACTTTTTAATTGCATAATAGAGCATTTTTTGTTTTGAGTTCCTCATTCTTATTACCAGAAAGAGC  
TTGCAAAATAGTTTTACTTTCTTGGCACTGGAAGGGTAGTTCTGGAAAGCTACTTTGTTGAGAGTCTCATTCTTCC  
CTGGAGTTAATAGAGTGATTACAAATCTTTGGGGTTTTCTCCTCATCAAAAGCATTTCCTAAGTGCCTATCTAAA  
AGCAATTAAAGACTGTGTCTGCCCTTTAGAAGCTAAGAATTTGATTCATGATGCAAATTAAGTAGATAATTTGCA  
AAGTACCCCTTGAGATTGAATTTTCTCTATTATATATTTCCCATATTTTCAGGTGAATAATTTAATTTAAATGACAA  
AACCTATCTAGTCAACTGGGCATAATGACATTTTCTTAAATTAGACTCTATTTTGAATTAAGAGATTTTATT  
ATAAACCGTGTGTTTTTGGTTTTTCTAAGTATATAGAAAGCTTGTATAATTCAGATTTATCAATTTCTGATTTA  
ATGTAGACTTTGACTTTTTTATTAAAAACCTTTGTATTAAAGCAAGTTATGTTATTTTCTTTTATGCATTTATT  
ACTAACATAGCTTTAAATCTTTAAATGTATTGAAGCATTGTGCTGTCTGAAAATAAGGAATTGCTTATAAACAG  
CCACTTCTGAATACAATATGTAGCTGATTTAATAAGCTAGTTAGTGAATGGAAAATAAGTGTGGAGTATTAAAAA  
TGTTCTTTGGTTGGTAAGGCCCTAAGATAGGGTTTCATTTATTTCTATACTTTTTCTGTTTTTTAAACACCTGCAT  
ATTTTTATGTAAATCTCTAAATTTAAATATTTTAAGTACATTTATTTTGGTGTTTTATTGTATAAAACCTTAG  
ACAATCAATCAGTCAGTCTTTACTGACAGGAGCAGCAGCTATCTGTCTTTTGCTGATCTACAAATAAATGAATTG  
AGAATTTAGTCCATAGAGGTCCCTGGCTACCAAACACATTCTCCTTTGAATTGTTAAAATTCAGAACATTCAAAA  
TAACTGTTTTGCTACAACCCATGATTATTTTCTGTTGTGTTTATTTAAATTTACTTTCTTTTGAAGTGCCT  
TATTTCTGAAAAATCTTAATGAAACAAACGCTTAGAACAAATATAAATATGAGACACTTGGGACTACTAGAGATA  
TTTTAGATTTTTATGAAAAAATGTGAGGGGATATTGCTGCTTTAAAAAGGAATAAAGTAATAAAATATATCTC  
AGCTATTTTTTTAAAGCAATATAATTCAGCAATTGCTAGAAAAGTAATCATGAGGCTACTGAGTTTGGTGTTC  
GTTACTGAGTTTCAAAAATGTTTTGGTGGCATGAGGACAAAATTTTCATTGAAGGTAAGATAAGAATAAAACTAT  
GTTTAC

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**FIGURE 471A**

CGGCGAAGGAGGGCGAGGAGGAAACGGTGCCGGAGCGNGCAGGGCTTGCTGCCGGCAACGGCGNTGCACAGGCTG  
CCGGAGCGAGCCTGCCGCGCGCCGCCCTTCCCGCTCTCCTTACTGGGCGAGCTGCGGGGATGGGGCGGCCGCGGG  
AGCCCCGAGCGCGCGCAGGAACCGCCGCCGCCGCCGCCCGCTCTCCGTTGCCGCGCGCCTGAGCCGCCGTCGCCG  
CCGCGCGCCCTGCCCGGGGGCGGCCCGCCAGCCCCATGGAGGTCTCCCGGAGGAAGGCGCCGCCGCGCCCCCG  
CGCCCCGAGCGCCACTGCCCCGTCTCGCCTATCTGCTGGCACTGGCGGCTCCCGGCCGGGGCGCGGACGAGCCC  
GTGTGGCGGTTCGGAGCAAGCCATCGGAGCCATCGCGGCGAGCCAGGAGGACGGCGTGTTTGTGGCGAGCGGCAGC  
TGCCTGGACCAGCTGGACTACAGCCTGGAGCACAGCCTCTCGCGCTGTACCGGGACCAAGCGGGCAACTGCACA  
GAGCCGGTCTCGCTGGCGCCCCCGCGCGGCCCGGCCCGGGAGCAGCTTCAGCAAGCTGCTGCTGCCCTACCGC  
GAGGGGGCGGCCGGCCTCGGGGGGCTGCTGCTCACCGGCTGGACCTTCGACCGGGGCGCTGCGAGGTGCGGCC  
CTGGGCAACCTGAGCCGCAACTCCCTGCGCAACGGCACCGAGGTGGTGTGCTGCCACCGCGAGGGCTCGACGGCC  
GGCGTGGTGTACCGCGCGGGCGCGGAACAACCGTGGTACCTGGCGGTGGCCGCCACCTACGTGCTGCCGTAGCCG  
GAGACGGCGAGCCGCTGCAACCCCGCGGCATCCGACCACGACACGGCCATCGCGCTCAAGGACACGGAGGGGCGC  
AGCCTGGCCACGCAGGAGCTGGGGCGCCTCAAGCTGTGCGAGGGCGCGGGCAGCCTGCACTTCGTGGACGCCTTT  
CTCTGGAACGGCAGCATCTACTTCCCCTACTACCCCTACAACATAACGAGCGCGCTGCCACCGGTGGCCAGC  
ATGGCGCGCATCGCGCAGAGCACCGAGGTGCTGTTCCAGGGCCAGGCATCCCTCGACTGCGGCCACGGCCACCCC  
GACGGCCGCGCCTGCTCCTCTCCTCCAGCCTAGTGAGGGCCTGGACGTCTGGGCGGGAGTGTTTCAGCGCGGCC  
GCTGGAGAGGGCCAGGAGCGGCGCTCCCCACCACCACGGCGCTCTGCCTCTTCAGAATGAGTGAGATCCAGGCG  
CGCGCCAAGAGGGTCAGCTGGGACTTCAAGACGGCCGAGAGCCACTGCAAAGAAGGGGATCAACCTGAAAGAGTC  
CAACCAATCGCATCATCTACCTTGATCCATTCCGACCTGACATCCGTTTATGGCACCGTGGAATGAACAGGACT  
GTTTTATTCTTGGGACTGGAGATGGCCAGTTACTTAAGGTTATTCTTGGTGAGAATTTGACTTCAAATTGTCCA  
GAGTTATCTATGAAATTAAAGAAGAGACACCTGTTTTCTACAACTCGTTTCCTGATCCTGTGAAGAATATCTAC  
ATTTATCTAACAGCTGGGAAAAGGTGAGGAGAATTCGTGTTGCAAACTGCAATAAACATAAATCCTGTTCCGAG  
TGTTTAACAGCCACAGACCCTCACTGCGGTTGGTGCCATTGCTACAAAGGTGCACTTTTCAAGGAGATTGTGTA  
CATTAGAGAACTTAGAAAATGGCTGGATATTTCTGCTGGAGCAAAAAAGTGCCCTAAAATTCAGATAATTGGA  
AGCAGTAAAGAAAAGACTACAGTGACTATGGTGGGAAGCTTCTCTCCAAGACACTCAAAGTGCATGGTGAAGAAT  
GTGGACTCTAGCAGGGAGCTCTGCCAGAATAAAAGTCAGCCCAACCGGACCTGCACCTGTAGCATCCCAACCAGA  
GCAACCTACAAAGATGTTTCAGTTGTCAACGTGATGTTCTCCTTCGGTTCTTGGAATTTATCAGACAGATTCAAC  
TTTACCAACTGCTCATCATTAATAAAGATGCCAGCATGCGTAGAACTGGCTGCGCGTGGTGTAAGTGCAAGA  
AGGTGTATCCACCCCTTCACAGCTTGCGACCTTCTGATTATGAGAGAAACCAGGAACAGTGTCAGTGCTGTC  
GAGAAGACATCAGGAGGAGGAAGACCCAAGGAGAACAAGGGGAACAGAACCAACCAGGCTTTACAGGTCTTCTAC  
ATTAAGTCCATTGAGCCACAGAAAGTATCGACATTAGGGAAAAGCAACGTGATAGTAACGGGAGCAAACTTTACC  
CGGGCATCGAACATCACAATGATCCTGAAAGGAACAGTACCTGTGATAAGGATGTGATACAGGTTAGCCATGTG  
CTAAATGACACCCACATGAAATTCTCTCTTCCATCAAGCCGGAAGAAATGAAGGATGTGTGATCCAGTTTGAT  
GGTGGGAACCTGCTCTTCTGTGGGATCCTTATCTTACATTGCTCTGCCACATTGTTCCCTTATATTTCTGCTACC  
ACCTGGATCAGTGGTGGTCAAAATATAACCATGATGGGCAGAAATTTGATGTAATTGACAACTTAATCATTCA  
CATGAATTAAAAGGAAACATAAATGTCTCTGAATATTGTGTGGCGACTTACTGCGGGTTTTTAGCCCCAGTTTA  
AAGAGTTCAAAGTGCGCACGAATGTCACTGTGAAGCTGAGAGTACAAGACACCTACTTGGAATTGTGGAACCCCTG  
CAGTATCGGGAGGACCCAGATTACGGGGTATCGGGTGGAATCCGAGGTGGACACAGAACTGGAAGTGAAAATT  
CAAAAAGAAAATGACAACTTCAACATTTCAAAAAAGACATTGAAATTACTCTCTTCCATGGGGAAAATGGGCAA  
TTAAATTGCAGTTTGAATAATTACTAGAAATCAAGATCTTACCACCATCCTTTGCAAAATTAAAGGCATCAAG  
ACTGCAAGCACCATTGCCAACTCTTCTAAGAAAGTTCGGGTCAAGCTGGGAAACCTGGAGCTCTACGTCGAGCAG  
GAGTCAGTTCTTCCACGTGGTATTTTCTGATTGTGCTCCCTGTCTTGCTAGTGATTGTCAATTTTTGCGGCCGTG  
GGGTGACCAGGCACAAATCGAAGGAGCTGAGTCGCAACAGAGTCAACAAC TAGAATTGCTGGAAAGCGAGCTC  
CGGAAAGAGATACGTGACGGCTTTGCTGAGCTGCAGATGGATAAATTGGATGTGGTTGATAGTTTTGGAAGTGT  
CCCTTCTTGACTACAAACATTTTGCTCTGAGAACTTCTTCCCTGAGTCAGGTGGCTTACCCACATCTTCACT  
GAAGATATGCATAACAGAGACGCCAACGACAAAGAA TGAAAGTCTCACAGCTTTGGATGCCCTAATCTGTAATAAA  
AGCTTTCTTGTTACTGTCTATCCACACCCTTGAAAAGCAGAAAGAACTTTCTGTGAAGGACAGGTGTCTGTTGCC  
TCCTTCTAACCATTGCACTGCAACCAAGCTGGTCTACCTGACCAGCATCCTAGAGGTGCTGACCAGGGACTTG

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**FIGURE 471B**

ATGGAACAGTGTAGTAACATGCAGCCGAAACTCATGCTGAGACGCACGGAGTCCGTCGTCGAAAACTCCTCACA  
AACTGGATGTCCGTCTGCCTTTCTGGATTCTCCGGGAGACTGTCCGAGAGCCCTTCTATTGCTGGTGACGACT  
CTGAACCAGAAAATTAACAAGGGTCCCGTGGATGTAATCACTTGCAAAGCCCTGTACACACTTAATGAAGACTGG  
CTGTTGTGGCAGGTTCCGGAATTCAGTACTGTGGCATTAAACGTCGTCCTTTGAAAAATCCCGGAAAACGAGAGT  
GCAGATGTCTGTCCGAATATTTCACTCAATGTTCTCGACTGTGACACCATTGGCCAAGCCAAAGAAAAGATTTTC  
CAAGCATTCTTAAGCAAAAAATGGCTCTCCTTATGGACTTCAGCTTAATGAAATTGGTCTTGAGCTTCAAATGGGC  
ACACGACAGAAAGAACTTCTGGACATCGACAGTTCCCTCCGTGATTCTTGAAGATGGAATCACCAAGCTAAACACC  
ATTGGCCACTATGAGATATCAAATGGATCCACTATAAAAGTCTTTAAGAAGATAGCAAATTTTACTTCAGATGTG  
GAGTACTCGGATGACCACTGCCATTTGATTTTACCAGATTCCGAAGCATTCCAAGATGTGCAAGGAAAAGAGACAT  
CGAGGGAAGCACAAGTTCAAAGTAAAAGAAAATGTATCTGACAAAGCTGCTGTGACCAAGGTGGCAATTCATTCT  
GTGCTTGAAAACTTTTTAGAAGCATTGGAGTTTACCCAACAGCAGAGCTCCATTTGCTATAAAATACTTTTTT  
GACTTTTTGGACGCCCAGGCTGAAAACAAAAAATCACAGATCCTGACGTCGTACATATTTGGAAAAACAAACAGC  
CTTCCTCTTCGCTTCTGGGTAAACATCCTGAAGAACCCTCAGTTTGTCTTTGACATTAAGAAGACACCACATATA  
GACGGCTGTTTGTGAGTGATTGCCAGGCATTTCATGGATGCATTTTCTCTCACAGAGCAGCAACTAGGGGAAGGAA  
GCACCAACTAATAAGCTTCTCTATGCCAAGGATATCCCAACCTACAAAGAAGAAGTAAAATCTTATTACAAAGCA  
ATCAGGGATTGCTCCATTGTCTATCCTCAGAAATGGAAGAATTTTTAACTCAGGAATCTAAGAAACATGAAAAT  
GAATTTAATGAAGAAGTGGCCTTGACAGAAATTTACAAATACATCGTAAAATATTTTGATGAGATTCTAAATAAA  
CTAGAAAGAGAACGAGGGCTGGAAGAAGCTCAGAAACAACCTCTTGATGTAAAAGTCTTATTTGATGAAAAGAAG  
AAATGCAAGTGGATGTAAGCACTCTGGGGCTGGCTTAATCTGGCAAAGTTCTTCAGACGACTTGGGAGCAAAAT  
GGCTGCTTGAGCTACTCTGTGTGCTTAATTTGTTGTTTGCACATAGGTTCCACTTTGGGCACTGTCTTTTAAAG  
GACCAAGGCACATGCACAGCTTTTAGAAAGCATACCAACCCTTGTCCTGTGTGTATACCGTGGGAACCCCTCTG  
TAAATAGAGTTGAAGTGGTTGTTGCAACAGCCTCCTTGTTTACAGAGAATACAAGGCCAGTAAGCGAATGTCTAG  
TATTGTAACCTACAGTCTCCACTTAAGCACAATGATATAAGTGGTTTTGTTTGAAGAACTACAGCTATGTAGCACTT  
GTGCTACACTGCACCTCTGCATTGTAAAGGGATAC TGCCAGTGCTCAAAACAAAATGTGAAATGAGTCATTGGA  
AACAAGGTGGGGGTGTTAGGGCAACCTCGAGGATTGTCAGCATTGAAACTTTCCCGAGTAGTTCTTGGAAGGCT  
GACCGCAGAAATTTGGTAGTGACACTTAGCATTGTTGAGTGTGTGTGTGTTTAAACCAAAAACCTAACAGTGTT  
GCAACATTGTTGAAGGGCTCGTGTTTTTCACTGGTCATCAACTGCACTCCATCAAACTCACCTCCATTTCACCA  
AGGAGCTCTAAAGTAAGGAGAGTGGGCTTTATTTAAATGAACAGCATTTTAACCAGATACTTTGTCCTAATGTAT  
GTTCCTTTTCTTCATCTGTTTTTTCATACTAAATGTATTTGATAGTGGACATGTTGGATATTATACAAAAAATC  
ATTAATTCATTTCTGTTCCAAACCTTTGATCAGAACGATCTGTGGAAGAGTAACTCCATTTCTATATGAGTGAG  
TGCTCCTTGCTTTAGATTTCTGGTGAACCTGTGTTATGAATACTTGTGTGTGATTTAAAAAAGATAC  
ATTTTACATTTTCGAATTGCTGTTTACACTGGAGTATTATATATAAATACTATATTTGAGGCCCAAGGCT  
GAAAAATATTAGTATACAACCTTGGTATCTTAGTCTTACTATGTACTTTTTGAAAGTATTCCTCGCAGGAGAAAGA  
ATTTAAATACCCATTTTATTCATGCCTTTCTTTTAAAGAATTCTCTATCCAGTTATACTGTAGTCTTTTGTAGT  
GCTGATTTTTTAATTCCTGAATTTTGTCTGCTCATGACCAGTTTTAATACCAGTGTGTTTTCTTCTATTAAACC  
AGAAGAAGTAAACAGCATAATTGGCAACTCTTGAGCTTTTCTTGTTGGCAGGCACCTTTTACCCTTGGTGCTCCAA  
ATCCCCATCTAGGAAAGAAAATTTTTCAAGTCAAATAACATTGATCACATATTCCTTGAAATCATTTACCAAC  
ACTGTATGGAGCATTAGGATTTAAATATGAATTTGTCTTAAAGGCAATTCCTTTTGCTTCTGTATTATCTGGAA  
AAGCATGAGAGAGGTGACACCTCAACAACTGATCAGAGAAAAAAGCAGTTACTACCCTGATAGGCACCTTCCC  
AATCCTGTTGCTTTTGACCATTTGTCTGTCCAACGGACACACCTCAACAAACAAAACCTACCAATAGATGACAGA  
TCAGAATAAAGGTGAGAGGTCTGGTCCCCATTGAAGGCTGCTACAGTCTTCAAAGAGGTGAAGGAGTTCATAAGA  
GAACAACAGTAGGAAAGTTGAGAGCCAAGGGTAGGAGAGTTGCCCCAAAGACTTCCCCTACTACTTTAGGGTACT  
GAAAACCTCAAAGGATCAGCTACAGCTTTATCTAAGTATTTACTAAATGCTACATGAGGGTGTCCCTGTCCAGCTT  
TCTGGCACATGAGTCCGTGTGTGGAGAGTTACCTCCTCTTCCAGGGACTGTGCTGTTGGGAACCTTTGGGCAAGTCA  
CTTACCTCTTTGTGCCCTCAATTTCTGTATAATAATATTTCTAAGCTACCTCACTGAGGTGGTATGAAGATTCAT  
AATGTATGTAGCGTGTGTTGTCAATCCTCCAGTGAAAAGCACTATCTAGATCACATTTTGGATCACATTAGCCAAA  
TGCAGTAAATGGCCAAATTAGATGTGTGCTGAAGACAATCAGTCACTGGGTCTATATTAAACAGCAACCAGAGCA  
ACAAATGGCAAACAATTTCTATTTTCAAGTTTCTTGCATATTTTTTGGTGCAAAACCATTATATAAATTTTTT

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**FIGURE 471C**

TTCTAACACTAGTGTCTACAGCAGCATTCAAAAAAATTCTGTTACCTTTTCTGTATTAGGATTTAAAGTCTATTT  
CTTATTGTATACCTGATTGAAGCTGTTCTTGGAGATGAATGTTTTAAATGTCTATATCCAAAAAATAACATTTT  
GATGTAACCTGTGAAAAAA



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**FIGURE 472**

RRRRARRKRCRSXQGLLPATAXHRLPERACRAPPFPLSLLGELRGWGGRGSPSARRNRRRRRRLRCRAPEPPSP  
PRALPGGGPPSPMEVSRRKAPPRPPRPAAPLPLLAYLLALAAPGRGADEPVWRSEQAIGAIAASQEDGVFVASGS  
CLDQLDYSLEHSLSRLYRDQAGNCTEPVSLAPPARPRPGSSFSKLLLPYREGAAGLGGLLTGWTFFDRGACEVRP  
LGNLSRNSLRNGTEVVVSCHPQGSTAGVVYRAGRNNRWYLAVAATYVLPEPETASRCNPAASDHDTAIALKDTEGR  
SLATQELGRLKLCEGAGSLHFVDAFLWNGSIYFPYYPNYTSGAATGWPSMARIAQSTEVLFGQGQASLDCGHGHP  
DGRRLLLSSSLVEALDVWAGVFSAAAGEGQERRSPTTTALCLFRMSEIQARAKRVSWDFKTAESHCKEGDQPERV  
QPIASSTLIHSDLTSVYGTVMNRTVFLGTGDGQLLKVILGENLTSNCPEVIYEIKEETPVFYKLVDPVKNIY  
IYLTAGKEVRRIRVANCNKHKSCSECLTATDPHCGWCHSLQRCTFQGDVHSENLENWLDISSGAKKCPKIQIR  
SSKEKTTVTMVGFSFSPRHSKCMVKNVDSSRELCQNKSQPNRTCTCSIPTRATYKDVSVVNMFSFGSWNLSDRFN  
FTNCSSLKECPACVETGCAWCKSARRCIHPFTACDPSDYERNQECPVAVEKTSGGGRPKENKGNRTNQALQVFI  
IKSIEPQKVSTLGKSNVIVTGANFTRASNITMILKGTSTCDKDVIQVSHVLNDTHMKFSLPSSRKEMKDVCIQFD  
GGNCSSVGSLSYIALPHCSLIFFATTWISGGQNITMMGRNFDVIDNLIISHELKGNINVSEYCVATYCGFLAPSL  
KSSKVRTNVTVKLRVQDITYLDCGTLQYREDPRFTGYRVESEVDTELEVKIQKENDNFNISKKDIEITLFHGENGQ  
LNCSEFENITRNQDLTTILCKIKGIKTASTIANSSKKVRVKLGNGLELYVEQESVPSTWYFLIVLPVLLVIVIFAAP  
GVTRHKSKELSRKQSQQELLESELRKEIRDGFAELQMDKLDVVDVDSFGTVPFLDYKHFALRTFFPESGGFTHIFT  
EDMHNDRDANDKNESLTALDALICNKSFLVTVIHTLEKQKNFSVKDRCLFASFLTIALQTKLVYLTSLILEVLTRDL  
MEQCSNMQPKMLLRTESVVEKLLTNWMSVCLSGFLRETVGEPFYLLVTTLNQKINKGFPVDVITCKALYTLNEDW  
LLWQVPEFSTVALNVVFEKIPENESADVCRNISVNVLDCTIGQAKEKIFQAFLSKNGSPYGLQLNEIGLELQMG  
TRQKELLDIDSSSVILEDGITKLNITIGHYEISNGSTIKVFKKIANFTSDVEYSDDHCHLILPDSEAFQDVQGRH  
RGKHKFKVKEMYLTLLSTKVAIHSVLEKLFRSIWSLPNSRAPFAIKYFFDFLDAQAENKKITDPDVVHIWKTNS  
LPLRFVWNILKNPQVFVDIKKTPHIDGCLSVIAQAFMDAFSLTEQQLGKEAPTNKLLYAKDIPTYKEEVKSYYKA  
IRDLPLSSSEMEEFLTQESKKHENEFNEEVALTEIYKYIVKYFDEILNKLERERGLEEAQQLLHVKVLDFDEKK  
KCKWM

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**FIGURE 473**

TTAGAGACGAGTTTTTTTTTTTTTCTATTACTTTTCCCCCCCCCTAACTAACGGACTATTATTGTTGTTGTTTT  
AAATTTAGCTCTTAGGGCTTAGCTATTTGGGTTTTCTTGCGGTGTCCGGCTCCCGTCTCCCTGGCTCCCCGCC  
GCCCTGCGGCCCCAGCGCCCTCGCTCTCATCCAGCCCGCGAGGAGTGCGGGCGCCGCGCCGCTTTAAAGCGAG  
GCCAGGGAGCGAGGCGGTGACCGGCCGAGATCCGGCCCTCGCCTCCTCCCTCGGTGGCGCTAGGGCTCCCGGCCT  
CTCTTCTCAGTGCGGGCGGAGAAGCGAAAGCGGATCGTCCTCGGTGCGGCCGCTTCTCCGGGACTCGCGCGC  
CCCTCCCCGCGCGCCACCCACCCAGTCCGGCTGGACTGCGGCAGCCGCGCGGCTCACCCGGCAGGATGTTTCGC  
AGCCGGGCTGGCTCCCTTCTACGCCTCCAACCTCAGCCTCTGGTCGGCCGCTTACTGCTCCTCGGCCGGCCAGG  
CGGCTGCTCCTTCCCCTTGGAACCCGCGCCGTCAAAAAGCCCTCCTTCTGCATCGCAGACATTCTGCACGCCGG  
CGTGGGGGATCTGGGGGCGGCCCCGGAGGGCCTGGCAGGGGCCTCGGCCGCCGCCCTCACCGCGCACTTGGGCTC  
GGTTCACCCGCACGCCTCTTTCCAAGCGCGGCCAGATCCCCGCTTCGACCCACCCAGTGGTGGCGCCCTCCGA  
AGTCCCGGCTGGCTTCCCGCAGCGGCTGTCTCCGCTCTCAGCCGCTACCACCACCATCACCCGCAACAACA  
GCAGCAGCAACAGCCGAGCAGCAACAGCCTCCGCCTCCGCCCGGGCTGGCGCCCTGCAGCCCCCGGCCTCGGG  
GACGCGAGTGGTTCCGAACCCCCACCACAGTGGCTCTGCCCGGGCCCCCTCCAGCAAAGACCTCAAATTTGGAAT  
TGACCGCATTTTTATCTGCAGAATTTGACCCAAAAGTCAAAGAAGGCAACACGCTGAGAGATCTCACTTCCCTGCT  
AACCGGTGGGCGGCCCCGCCGGGTGCACCTCTCAGGCCTGCAGCCCTCGGCCGGCCAGTCTTTCGCATCTCTAGA  
TCCCATTAACGAGGCTTCTGCAATCCTGAGTCCCTTAAACTCGAACCCAAGAAATTCAGTTCAGCATCAGTTCCA  
AGACACGTTTCCAGGTCCCTATGCTGTGCTCACGAAGGACACCATGCCGACAGCTACAAAAGGAAGCGTTTCATG  
GTCGCGCGCTGTGTTCTCCAACCTGCAGAGGAAAGGCCTGGAGAAAAGGTTTGAGATTAGAAAGTACGTGACCAA  
GCCGGACCGAAAGCAGCTGGCGGCGATGCTGGGCCTCACGGACGCACAGGTGAAGGTGTGGTTCCAGAACCGGCG  
GATGAAGTGGCGGCACTCCAAGGAGGCCCAGGCCCAAAGGACAAGGACAAGGAGGCTGGCGAGAAGCCATCAGG  
TGGAGCCCCGGCTGCGGATGGCGAGCAGGACGAGAGGAGCCCCAGCCGTTCTGAAGGCGAGGCTGAGAGCGAGAG  
CAGCGACTCCGAGTCCCTGGACATGGCCCCCAGCGACACGGAGCGGACTGAGGGGAGTGAGCGTTCTCTGCACCA  
AACAACAGTTATTAAGGCCCCGGTCACTGGCGCCCTCATTACCGCCAGCAGTGCTGGGAGTGGTGGGAGCAGCGG  
CGGCGGCGGCAATAGTTTTCAGCTTCAGCAGCGCCAGCAGTCTTAGTAGCAGCAGCACCAGTGCGGGTTGCGCCAG  
CAGCCTTGGCGGCGGCGGCGCCTCGGAGCTTCTCCCTGCAACACAGCCACAGCCAGCAGCGCTCCCAAAAGCCC  
CGAGCCAGCCCAAGGCGCGCTTGGCTGCTTAAGACTGTACTAGGGCGGAGGGGATCCGGGCCTTGCCTGCAGCC  
TCCCAACCATGGGCTGGGTTTTGTGCTTACTGTATGTTGGCGACTTGGTAGGGCAGGAGACGCAGCGTGGAGCCT  
ACCTCCCGACATTCACGCTTCGCCCCACGCTGCTCCGACTGGCTGCAGCGGACACTGCCCAAAGCAGAGGGGAGT  
CTCAGTGTCTGCTAGCCAGCCGAACACTTCTCTCCGGAAGCAGGCTGGTTTCGACTGTGAGGTGTTTGACTAAAC  
TGTTTCTCTGACTCGCCCCAGAGGTCGTGGCTCAAAGGCACCTAGGACGCCTTAAATTTGTAAATAAAATGTTTA  
CTACGGTTAAA

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**FIGURE 474**

MFAAGLAPFYASNFSLWSAAYCSSAGPGGCSFPLDPAAVKKPSFCIADILHAGVGD LGAAPEGLAGASAAALTAH  
LGSVHPHASFQAAARSPLRPTPVVAPSEVPAGFPQRLSPLSAAYHHHPQQQQQQQPQQQQPPPPPRAGALQPP  
ASGTRVVPNPHHSGSAPAPSSKDLKFGIDRILSAEFDPKVKEGNTLRDLTSLLTGGRPAGVHLSGLQPSAGQFFA  
SLDPINEASAILSP LNSNPRNSVQH QFQDTFPGPYAVLTKDTMPQTYKRKRSWSRAVFSNLQRKGLEKRFEIQKY  
VTKPDRKQLAAMLGLTDAQVKVWFQNRMRKWRHSKEAQAQKDKDKEAGEKPSGGAPAADGEQDERSPSRSEGEAE  
SESSDSES LDMAPSDTERTEGSESLHQTTVIKAPVTGALITASSAGSGGSSGGGGNSFSFSSASSLSSSSTSAG  
CASSLGGGGASELLPATQPTASSAPKSPEPAQGALGCL

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**FIGURE 475**

GCCCGCCCTCGGCTCCTCCGCCGTG**ATG**CTGTCCCGATCCCGCTGTGTGTCTCGGGCGTTCAGCCGCTCGCTCTC  
CGCCTTCCAGAAGGGGAACTGCCCTCTAGGGAGACGTTCCCTGCCTGGGGTCTCCTTATGCCAGGGACCAGGTTA  
CCCTAACAGCAGGAAGGTTGTCTTAACAACAGTGTCTTCAGTGTTCGCTTTTTCAGAACTACAGCTGTATGCAA  
GGATGACTTGGTTACAGTCAAAACCCAGCGTTTGCAGAATCTGTACAGAGGGAGATGTCAGGTGGGAGAAAGC  
TGTTGGAGACACAGTTGCAGAAGATGAAGTGGTTTGTGAGATTGAACTGACAAGACATCTGTGCAGGTTCATC  
ACCAGCAAATGGCGTGATTGAAGCTCTTTTGGTACCTGATGGGGGAAAAGTCGAAGGAGGCACTCCACTTTTCAC  
ACTCAGGAAAACCTGGTGCTGCTCCTGCTAAGGCCAAGCCGGCTGAAGCTCCTGCTGCTGCAGCCCCAAAAGCAGA  
ACCTACAGCAGCGGCAGTTCCCTCCCCCTGCAGCACCCATACCCACTCAGATGCCACCGGTGCCCTCGCCCTCACA  
ACCTCCTTCTGGCAAACCTGTGTCTGCAGTAAACCCACTGTTGCCCCACCACTAGCTGAGCCAGGAGCTGGCAA  
AGGTCTGCGTTCAGAACATCGGGAGAAAATGAACAGGATGCGGCAGCGCATTGCTCAGCGTCTGAAGGAGGCCCA  
GAATACATGTGCAATGCTGACAACTTTTAATGAGATTGACATGAGTAACATCCAGGAGATGAGGGCTCGGCACAA  
AGAGGCTTTTTTGAAGAAACATAACCTCAAACCTAGGCTTCATGTCCGCATTTGTGAAGGCCCTCAGCCTTTCCTT  
GCAGGAACAGCCTGTTGTAATGCAGTGATTGACGACACAACCAAAGAGGTGGTGTATAGGGATTATATTGACAT  
CAGTGTTCAGTGGCCACCCACGGGGTCTGGTGGTTCCAGTCATCAGGAATGTGGAAGCTATGAATTTTGAGA  
TATTGAACGGACCATCACTGAACTGGGAGAGAAGGCCCGAAAGAATGAACTTGCCATTGAAGATATGGATGGCGG  
TACCTTACCATTAGCAATGGAGGCGTTTTTGGCTCGCTCTTTGGAACACCCATTATCAACCCCCCTCAGTCTGC  
CATCCTGGGGATGCATGGCATCTTTGACAGGCCAGTGGCTATAGGAGGCAAGGTAGAGGTGCGGCCCATGATGTA  
CGTGGCACTGACCTATGATCACCGGCTGATTGATGGCAGAGAGGCTGTGACTTTCCCTCCGCAAAATCAAGGCAGC  
GGTAGAGGATCCCAGAGTCCTCCTCGGATCTTT**TAGG**AGGAACCCACACACCCTACAAGTTGATCATGCAGGAA  
CTGAAAACAGTCTTCTCCCTGTCCCTCATGGGTCCCGGGTTAGCCTGGTGACAGGCAGACACATGCTGTTGGC  
CTCAAGCAAGGAAGCAGAGCACTGTGTAACCAGCAGTCACAGGTCCTTTTCTTGGCGTTCTGCCAGGCTCTCCCT  
CTCTGCACCTGTCTCATAGCCTCGAATATCTTAATTCCTTAGGCTTAAGAGAGAGAGCCTTAATGGATGCTCATT  
CATATTCCTGCCTTTCTTCCATCAGCTCTCTGCAAAGATGATTTTGCTTCTCCCTAGTGCTGGTATACTATAGAG  
AAACCCCCGGGGACCATGTGATTAAGTTCCCTATCTTTTGAAAGTTTGTCTGCAGAGACTTCTAGGAGGATGCTG  
TGCCTCCCAAGCTCAGAGCAGCCTCTGTCTGGCTGTGCACATTCTCCCTTGATTCCACTTGTGTGGAGGGATTG  
AACACAGGCAAAGAGGTGCTGCTTTGCTTCTTCAATGGCACCTTCATTCTCCGTTGTCAATTGACTTCAAGATGCC  
TCTTCTACCTCTTCCAGGAAGCACAGGCCAGGGGATCTGGGTGTGTGAGTGGGAGGAGAGGGCAGAGGTCCCCTG  
AGGTCATGCATTGTAATCATCATAGAAGGAGAGGCCAGGCCTGCCCTCACGCTCTCCATCATAGGCTGACACCAA  
GAAGACTCGTCTTGGCACAATCTCACACAGCTGGGGCTGTAGCAACCCTTTCCAACCCCTTTGCTGGTTGCTGGG  
CCTCATTCTAGCACCTTGTTCTTAGAGCAGATTCTAGCACATCATGGCAGTGGGACCAAGCGTGGTCCCGAGGAA  
GGGCCAGAGCCTGGTAGAGACTAGGGAAGGGAGGTCTCCTCTAGACTGACTCACATTGCCTTGAGCTTTTCAGTT  
AAGTTGCTGTAAGCACCTGGGCTGAGGAGGCAGTTTTTGTTCCTTCTGCGTTATAGCGGGGCCCTGTCTCTTCC  
TCTGCAGGACACAGATCTGGAGGACGTGGACTGGGGTAGGAAACCACCCTGAGGGTGTAGTACCTAGTGGTGAA  
ATGGATGAGGTCAATTTCTAAGGTGTGTTGCCCGTGGATCTGGGCACAATCATTGGAATTCCTTGAGGCCACTGGG  
ATTCATGGCTTTGTATCCAACCTGCATCCAGGCCTGAGGCTGCTGACGTTTGACACCAGGGCCAGTAGAGAGTGCC  
CTTTTGTATCTTAAGCCAAGAAGTGAGGCCTGGGGGTGGGGGAGGGGGGAAGGGGTGGGAGCCAATACTGAGTGC  
CTGCAGCATCTACTACTCTGTCTTCACTATTCAAGACTTGTAATAAGTATTTAAAGAACTGATTTTAAATGC  
AAATTAAGGGCAGATATTCTCAAAAAAAAAAAAAAAAAA

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**FIGURE 476**

MLSRSRCVSRAFSRSLSAFQKGNCP LGRRSLPGVSLCQGPYPNSRKVVINNSVFSVRFFRTTAVCKDDLVTVKT  
PAFAESVTEGDVRWEKAVGDTVAEDEVVCEIETDKTSVQVPSPANGVIEALLVPDGGKVEGGTPLFTLRKTGAAP  
AKAKPAEAPAAAAPKAEPTAAAVPPPAAP IPTQMPVPSPSQPPSGKPVSAVKPTVAPPLAEPGAGKGLRSEHRE  
KMNRMQRRIAQRLKEAQNTCAMLTTFNEIDMSNIQEMRARHKEAFLKKHNLKLGFM SAFVKASAFALQEQPVVNA  
VIDDTTKEVVYRDYIDISVAVATPRGLVVPVIRNVEAMNFADIERTITELGEKARKNELAIEDMDGGTFTISNGG  
VFGSLFGTPIINPPQSAILGMHGIFDRPVAIGGKVEVRPMMYVALTYDHRLIDGREAVTFLRKIKAAVEDPRVLL  
LDL

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**FIGURE 477**

ATGGGGGAGCAGCCGATCTTCACCACCCGAGCGCATGTCTTCCAGATTGACCCCAACACCAAGAAGAACTGGATG  
CCTGCGAGCAAGCAGGCGGTACCGTTTTCCTACTTCTATGATGTCACAAGGAACAGCTATCGGATCATCAGTGTG  
GACGGAGCCAAGGTGATCATAAACAGCACAATCACACCGAATATGACCTTCACCAAAACGTCACAGAAGTTTGGG  
CAGTGGGCGGACAGCAGAGCCAACACAGTGTGTTGGTTTGGGGTTTTCTCTGAGCAGCAGCTGACAAAGTTTGCA  
GAGAAATTCCAGGAGGTGAAAGAAGCTGCCAAGATAGCCAAAGACAAGACGCAGGAGAAAATCGAGACCTCAAGT  
AATCATTCCCAAGAATCTGGGCGTGAAACCCCATCTTCTACTCAGGCATCCAGTGTCAACGGGACGGACGAGGAA  
AAGGCCTCTCACGCCGGTCCAGCCAACACACAAGTCTGAGAATGACAAGCTGAAGATTGCCTTGACGCAG  
AGCGCAGCCAACGTGAAGAAGTGGGAGATCGAGCTGCAGACCCTTCGGGAGAGCAATGCACGGCTGACCACAGCA  
CTGCAGGAGTCGGCAGCCAGTGTGGAGCAGTGGGAAGAGGCAGTTCTCCATCTGCCGTGATGAGAATGACCGGCTC  
CGCAACAAGATTGATGAGCTGGAAGAACAATGCAGTGAGATCAACAGAGAGAAGGAGAAGAACACGCAGCTGAAG  
AGGAGGATCGAGGAGCTGGAGGCAGAGCTCCGAGAAAAGGAGACAGAGCTGAAAGATCTCCGAAAACAAAGTGAA  
ATCATACCTCAGCTCATGTGAGAGTGCGAATATGTCTCTGAGAAGCTAGAGGCGGCAGAGAGAGACAATCAAAAC  
CTGGAAGACAAAGTGCGTTCTTAAAGACAGACATTGAGGAGAGCAAATACCGACAGCGCCACCTGAAGGTGGAG  
TTGAAGAGCTTCTGGAGGTGCTGGACGGGAAGATTGACGACCTGCATGACTTCCGCCGAGGGGCTCTCCAAGCTG  
GGCACCGATAACTACGGCTGGCCGAGGCCAGGCCCGCCCGTGAGTCCCAAGCGTGTGTGCGAGACCAGATAGC  
TCTAGGACGTTCTTCTGTGTGATTGCTTCTGTAAATGCAGGCGCAGTTTGTCTGTGTTTCCAAACCAAGTTGTGCC  
GTCCACTCACTCCTTTTTCAGAATAGAAATCTCCTCTCGCTTCTCTGGCCTTGTGAGGTTGTGGACAACCTGGAAGA  
TTCTGACTCAGGAATCCAGAACTAGGTCTACCTTCAACATTTATGCAGTCAGGGCAGGGATGTTTATATCTTTCA  
TAAGGGCTGTTGCAACCATATGAACTGAAAAAACACGCATTTTGTAAATCCAAATATTGATATTCTTTACACCAAG  
CCATCAGGCTCCTTTTATCAAATAGCATTGAGAGTATTTGAATGTCCACCAGACACCAGCCCCGGGGGGCACAGA  
GAGAACAACATTTCCTCTCTGTCAACATCGAGAGGCTTTAAACAAGTGTGTTAGTGGAAGTCTTCTGAGAGATGGA  
AAACAAGCTTCTGGTGGGTGCATTTTCTGGCCCGGAGTTGCCTGCATCCACGCTACTGCCCCCTGCCCCCGCCC  
CCCCAGTTTGTACGGTTGCAACAGTGTTCCTTTTCTGGTTTTAATTTCTGAGCAGATGATTGCTGTGGGAACA  
GCACACAGTGAGGGTGCTTAGCACAATGTCTGGCACAAAGTAGGTGCTTAATAAATATTTGTTCAATTAACAAAAA

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**FIGURE 478**

MGEQPIFTTRAHV FQIDPNTKKNWMPASKQAVTVSYFYDVTRNSYRIISVDGAKVIINSTITPNMTFTKTSQKFG  
QWADSRANTVFGLGFSSEQQLTKFAEK FQEVKEAAKIAKDKTQEKIETSSNHSQESGRETPSSTQASSVNGTDEE  
KASHAGPANTQLKSENDKLKIALTQSAANVKKWEIELQTLRESNARLTTALQESAASVEQWKRQFSICRDENDRL  
RNKIDELEEQCSEINREKEKNTQLKRRIEELEAELREKETELKDLRKQSEIIPQLMSECEYVSEKLEAAERDNQN  
LEDKVRSLKTDIEESKYRQRHLKVELKSFLEVLDGKIDDLHDFRRLSKLGTDN

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**FIGURE 479**

CCCCGCACGAAACCGAGTTCTGGAGAACGCCATCAGCTCGCTGCTTAAAATTAAACCACAGGTTCCATTATGGGT  
CGACTTGATGGGAAAGTCATCATCCTGACGGCCGCTGCTCAGGGGATTGGCCAAGCAGCTGCCTTAGCTTTTGCA  
AGAGAAGGTGCCAAAGTCATAGCCACAGACATTAATGAGTCCAACTTCAGGAAGTGGAAAAGTACCCGGGTATT  
CAAACTCGTGTCTTGTATGTCACAAAGAAGAAACAAATTGATCAGTTTGCCAATGAAGTTGAGAGACTTGATGTT  
CTCTTTAATGTTGCTGGTTTTGTCCATCATGGAACGTGCTGATTGTGAGGAGAAAGACTGGGACTTCTCGATG  
AATCTCAATGTGCGCAGCATGTACCTGATGATCAAGGCATTCTTCTTAAATGCTTGCTCAGAAATCTGGCAAT  
ATTATCAACATGTCTTCTGTGGCTTCCAGCGTCAAAGGAGTTGTGAACAGATGTGTGTACAGCACACCAAGGCA  
GCCGTGATTGGCCTCACAAAATCTGTGGCTGCAGATTCATCCAGCAGGGCATCAGGTGCAACTGTGTGTGCCCA  
GGAACAGTTGATACGCCATCTCTACAAGAAAGAATACAAGCCAGAGGAAATCCTGAAGAGGCACGGAATGATTTCT  
CTGAAGAGACAAAAGACGGGAAGATTCGCAACTGCAGAAGAAATAGCCATGCTCTGCGTGTATTTGGCTTCTGAT  
GAATCTGCTTATGTAAGTGGTAACCCTGTCATCATTGATGGAGGCTGGAGCTTGTGATTTTAGGATCTCCATGGT  
GGGAAGGAAGGCAGGCCCTTCTATCCACAGTGAACCTGGTTACGAAGAAAACCTACCAATCATCTCCTTCCTGT  
TAATCACATGTTAATGAAAATAAGCTCTTTTAAATGATGTCACGTGTTTGCAAGAGTCTGATTCTTTAAGTATATT  
AATCTCTTTGTAATCTCTTCTGAAATCATTGTAAAGAAATAAAAATATTGAACTCATAAAAAAAAAAAAAAAAAA



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**FIGURE 480**

MGRLDGKVIILTAAAQGIGQAAALAFAREGAKVIATDINESKLQELEKYPGIQTRVLDVTKKKQIDQFANEVERL  
DVLFNVAGFVHHGTVDCEEKDWD F SMNLNVRSMYLMIKAF L P K M L A Q K S G N I I N M S S V A S S V K G V V N R C V Y S T T  
K A A V I G L T K S V A A D F I Q Q G I R C N C V C P G T V D T P S L Q E R I Q A R G N P E E A R N D F L K R Q K T G R F A T A E E I A M L C V Y L A  
S D E S A Y V T G N P V I I D G G W S L

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**FIGURE 481A**

GCCCTGCTTCCCTTGCACCTGCGCCGGGCGGCCATGACTTGTACAGCACCCCGGCCGCTGCGCTGGACAGGTT  
CGTGGCCAGAAGGCTGCAGCCGCGGAAGGAGTTCGTAGAGAAGGCGCGGCGCTCTGGGCGCCCTGGCCGCTGC  
CCTGAGGGAGCGCGGGGGCCGCTCGGTGCTGCTGCCCCGCGGTGCTGAAAAGTGTCAAGGGAGGCTCCTCGGG  
CCGGGGCACAGCTCTCAAGGGTGGCTGTGATTCTGAAGTGTGCTCTTCTCGACTGCTTCAAGAGCTATGTGGA  
CCAGAGGGCCCCGCTGCAGAGATCCTCAGTGAGATGCGGGCATCGCTGGAATCCTGGTGGCAGAACCAGTCCC  
TGGTCTGAGACTCACGTTTCTGAGCAGAGCGTGCCTGGGGCCCTGCAGTTCCGCTGACATCCGTAGATCTTGA  
GGACTGGATGGATGTTAGCCTGGTGCCTGCCTTCAATGTCTGGGTGAGGCCGCTCCGCGGTCAAACCCAGCC  
ACAAGTCTACTCTACCCTCCTCAACAGTGGCTGCCAAGGGGGCGAGCATGCGGCCTGCTTACAGAGCTGCGGAG  
GAAGTTTGTGAACATTGCCCCAGCCAAGTTGAAGAACCTAATCTTGCTGGTGAAGCACTGGTACCACCAGGTGTG  
CCTACAGGGGTTGTGGAAGGAGACGCTGCCCCGGTCTATGCCCTGGAATTGCTGACCATCTTCGCTGGGAGCA  
GGGCTGTAAGAAGGATGCTTTAGCCTAGGCGAAGGCCTCCGAAGTGTCTGGGCTGATCCAACAGCATCAGCA  
CCTGTGTGTTTTCTGACTGTCAACTATGGCTTCGAGGACCCTGCAGTTGGGCAGTTCTTGCAGCGGCACGTTAA  
GAGACCCAGGCTGTGATCCTGGACCCAGCTGACCCACATGGGACCTGGGGAATGGGGCAGCCTGGCACTGGGA  
TTTGCATGCCCAGGAGGAGCATCCTGCTATGACCACCCATGCTTTCTGAGGGGGATGGGGGACCCAGTGAGTC  
TTGGAAGGGGCCGGGCTTCCACGTGCTGGATGCTCAGTTTGGGCCACCCATCCAGCTAGACCCTAACCAGAA  
GACCCCTGAAAACAGCAAGAGCCTCAATGCTGTGTACCCAAGAGCAGGGAGCAAACCTCCCTCATGCCAGCTCC  
TGGCCCCACTGCGGAGCCAGCATCGTACCCCTCTGTGCCGGGAATGGCCTTGGACCTGTCTCAGATCCCCACCAA  
GGAGCTGGACCGCTTCATCCAGGACCACCTGAAGCCGAGCCCCAGTTCCAGGAGCAGGTGAAAAAGGCCATCGA  
CATCATCTTGCGCTGCCTCCATGAGAACTGTGTTACAAAGGCCTCAAGAGTCAGTAAAGGGGGCTCATTTGGCCG  
GGGCACAGACCTAAGGGATGGCTGTGATGTTGAATCATCATCTTCTCAACTGCTTCACGGACTACAAGGACCA  
GGGGCCCCGCGCGCAGAGATCCTTGATGAGATGCGAGCGCACGTAGAATCCTGGTGGCAGGACCAGGTGCCAG  
CCTGAGCCTTCAGTTTCTTGAGCAGAAATGTGCCTGAGGCTCTGCAGTTCCAGCTGGTGTCCACAGCCCTGAAGAG  
CTGGACGGATGTTAGCCTGCTGCCTGCCTTCGATGCTGTGGGGCAGCTCAGTTCTGGCACCAACCAAAATCCCCA  
GGTCTACTCGAGGCTCCTCACCAGTGGCTGCCAGGAGGGCGAGCATAAGGCCTGCTTCGCAGAGCTGCGGAGGAA  
CTTCATGAACATTGCCCCGTGTAAGCTGAAGAACCCTGATTCTGCTGGTGAAGCACTGGTACCGCCAGGTTGCGGC  
TCAGAACAAAGGAAAAGGACCAGCCCCCTGCCTCTCTGCCCCAGCCTATGCCCTGGAGCTCCTCACCATCTTTGC  
CTGGGAGCAGGGCTGCAGGCAGGATTGTTTCAACATGGCCCAAGGCTTCCGGACGGTGCTGGGGCTCGTGCAACA  
GCATCAGCAGCTCTGTGTCTACTGGACGGTCAACTATAGCACTGAGGACCCAGCCATGAGAATGCACCTTCTTGG  
CCAGCTTCGAAAACCCAGACCCCTGGTCTTGACCCCGCTGATCCCACCTGGAACGTGGGCCACGGTAGCTGGGA  
GCTGTTGGGCCAGGAAGCAGCAGCGCTGGGGATGCAGGCCTGCTTTCTGAGTAGAGACGGGACATCTGTGCAGCC  
CTGGGATGTGATGCCAGCCCTCCTTTACCAAACCCAGCTGGGGACCTTGACAAGTTTCATCAGTGAATTTCTCCA  
GCCCCAACCGCCAGTTCTTGCCCCAGGTGAACAAGGCCGTTGATACCATCTGTTTCAATTTTGAAGGAAAAGTCTT  
CCGGAATTTCTCCATCAAAGTGATCAAGGTGGTCAAGGGTGGCTCTTACGCCAAAGGCACAGCTCTGCGAGGCCG  
CTCAGATGCCGACCTCGTGGTGTTCCTCAGCTGCTTCAGCCAGTTCACTGAGCAGGGCAACAAGCGGGCCGAGAT  
CATCTCCGAGATCCGAGCCCAGCTGGAGGCATGTCAACAGGAGCGGCAGTTTCGAGGTCAAGTTTGAAGTCTCCAA  
ATGGGAGAATCCCCGCGTGCTGAGCTTCTCACTGACATCCCAGACGATGCTGGACCAGAGTGTGGACTTTGATGT  
GCTGCCAGCCTTTGACGCCCTAGGCCAGCTGGTCTCTGGCTCCAGGCCAGCTCTCAAGTCTACGTCGACCTCAT  
CCACAGCTACAGCAATGCGGGCGAGTACTCCACCTGCTTCACAGAGCTACAACGGGACTTCATCATCTCTCGCCC  
TACCAAGCTGAAGAGCCTGATCCGGCTGGTGAAGCACTGGTACCAGCAGTGTACCAAGATCTCCAAGGGGAGAGG  
CTCCCTACCCCCACAGCAGGGCTGGAAGTCTGACTGTGTATGCCTGGGAGCAGGGCGGGAAGGACTCCAGTT  
CAACATGGCTGAGGGCTTCCGCACGGTCTTGAGCTGGTCAACCAGTACCAGCCAGCTCTGTATCTACTGGACCAT  
CAACTACAACGCCAAGGACAAGACTGTTGGAGACTTCTGAAACAGCAGCTTCAGAAGCCAGGCCTATCATCTT  
GGATCCGGCTGACCCGACAGGCAACCTGGGCCACAATGCCCGCTGGGACCTGCTGGCCAAGGAAGCTGCAGCCTG  
CACATCTGCCCTGTGCTGCATGGGACGGAATGGCATCCCCATCCAGCCATGGCCAGTGAAGGCTGCTGTGTGAAG  
TTGAGAAAAATCAGCGTCTACTGGATGAAGAGAAGATGGACACCAGCCCTCAGCATGAGGAAATTCAGGGTCCC  
CTACCAGATGAGAGAGATTGTGTACATGTGTGTGTGAGCACATGTGTGCATGTGTGTGCACACGTGTGCATGTGT  
GTGTTTTAGTGAATCTGCTCTCCAGCTCACACACTCCCCTGCCTCCCATGGCTTACACACTAGGATCCAGACTC  
CATGGTTTGACACCAGCCTGCGTTTGCAGCTTCTCTGTCACTTCCATGACTCTATCCTCATACCACCACTGCTGC

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**FIGURE 481B**

TTCCCACCCAGCTGAGAATGCCCCCTCCTCCCTGACTCCTCTCTGCCCATGCAAATTAGCTCACATCTTTCCTCC  
TGCTGCAATCCATCCCTTCCTCCCATTTGGCCTCTCCTTGCCAAATCTAAATACTTTATATAGGGATGGCAGAGAG  
TTCCCATCTCATCTGTCAGCCACAGTCATTTGGTACTGGCTACCTGGAGCCTTATCTTCTGAAGGGTTTTAAAGA  
ATGGCCAATTAGCTGAGAAGAATTATCTAATCAATTAGTGATGTCTGCCATGGATGCAGTAGAGGAAAGTGGTGG  
TACAAGTGCCATGATTGATTAGCAATGTCTGCACTGGATATGAAAAAAGAAGGTGCTTGCAGGTTTACAGTGTA  
TATGTGGGCTATTGAAGAGCCCTCTGAGCTCGGTTGCTAGCAGGAGAGCATGCCCATATTGGCTTACTTTGTCTG  
CCACAGACACAGACAGAGGGAGTTGGGACATGCATGCTATGGGGACCCTCTTGTTGGACACCTAATTGGATGCCT  
CTTCATGAGAGGCCTCCTTTTCTTCACCTTTTTATGCTGCACTCCTCCCCTAGTTTACACATCTTGATGCTGTGGC  
TCAGTTTGCCTTCCTGAATTTTTATTGGGTCCCTGTTTTCTCTCCTAACATGCTGAGATTCTGCATCCCCACAGC  
CTAAACTGAGCCAGTGGCCAAACAACCGTGCTCAGCCTGTTTTCTCTCTGCCCTCTAGAGCAAGGCCACCAGGTC  
CATCCAGGAGGCTCTCCTGACCTCAAGTCCAACAACAGTGTCCACACTAGTCAAGGTTAGCCCCAGAAAACAGAA  
AGCACTCTAGGAATCTTAGGCAGAAAAGGGATTTTTATCTAAATCACTGGAAAGGCTGGAGGAGCAGAAGGCAGAGG  
CCACCACTGGACTATTGGTTTTCAATATTAGACCACGTAGCCGAATCAGAGGCCAGAGAGCAGCCACTGCTACTG  
CTAATGCCACCACTACCCCTGCCATCACTGCCCCACATGGACAAAACCTGGAGTCGAGACCTAGGTTAGATTCCCTG  
CAACCACAAACATCCATCAGGGATGGCCAGCTGCCAGAGCTGCGGGAAGACGGATCCCACCTCCCTTTCTTAGCA  
GAATCTAAATTACAGCCAGACCTCTGGCTGCAGAGGAGTCTGAGACATGTATGATTGAATGGGTGCCAAGTGCCA  
GGGGGCGGAGTCCCCAGCAGATGCATCCTGGCCATCTGTTGCGTGGATGAGGGAGTGGGTCTATCTCAGAGGAAG  
GAACAGGAAACAAAGAAAGGAAGCCACTGAACATCCCTTCTCTGCTCCACAGGAGTGTCTTAGACAGCCTGACTC  
TCCACAAACCACTGTTAAAACCTTACCTGCTAGGAATGCTAGATTGAATGGGATGGGAAGAGCCTTCCCTCATTAT  
TGTCATTCTTGGAGAGAGGTGAGCAACCAAGGGAAGCTCCTCTGATTACCTAGAACCTGTTCTCTGCCGTCTTT  
GGCTCAGCCTACAGAGACTAGAGTAGGTGAAGGGACAGAGGACAGGGCTTCTAATACCTGTGCCATATTGACAGC  
CTCCATCCCTGTCCCCCATCTTGGTGCTGAACCAACGCTAAGGGCACCTTCTTAGACTCACCTCATCGATACTGC  
CTGGTAATCCAAAGCTAGAACTCTCAGGACCCCCAACTCCACCTCTTGGATTGGCCCTGGCTGCTGCCACACACA  
TATCCAAGAGCTCAGGGCCAGTTCTGGTGGGCAGCAGAGACCTGCTCTGCCAAGTTGTCCAGCAGCAGAGTGGCC  
CTGGCCTGGGCATCACAAGCCAGTGATGCTCCTGGGAAGACCAGGTGGCAGGTGCGAGTTGGGTACCTTCCATT  
CCACCACACAGACTCTGGGCCTCCCCGCAAAATGGCTCCAGAATTAGAGTAATTATGAGATGGTGGGAACCAGAG  
CAACTCAGGTGCATGATACAAGGAGAGGTTGTCATCTGGGTAGGGCAGAGAGGAGGGCTTGCTCATCTGAACAGG  
GGTGTATTTTATTCCAGGCCCTCAGTCTTTGGCAATGGCCACCCTGGTGTGGCATATTGGCCCCACTGTAACTT  
TTGGGGGCTTCCCGGTCTAGCCACACCCTCGGATGGAAAGACTTGACTGCATAAAGATGTCAGTTCTCCCTGAGT  
TGATTGATAGGCTTAATGGTCACCCTAAAAACACCACATATGCTTTTCGATGGAACCAGATAAGTTGACGCTAA  
AGTTCTTATGAAAAAATACACACGCAATAGCTAGGAAAACACAGGGAAGAAGAGTTCTGAGCAGGGCCTAGTCT  
TAGCCAATATTAACATACTATGAAGCCTCTGATACTTAAACAGCATGGCGCTGGTACGTAAATAGACCAATGC  
AGTTAGGTGGCTCTTTCCAAGACTCTGGGGAAAAAAGTAGTAAAAAGCTAAATGCAATCAATCAGCAATTGAAAG  
CTAAGTGAGAGAGCCAGAGGGCCTCCTTGGTGGTAAAGAGGGTTGCATTTCTTGCAGCCAGAAGGCAGAGAAAG  
TGAAGACCAAGTCCAGAAGTGAATCCTAAGAAATGCAGGACTGCAAAGAAATTGGTGTGTGTGTGTGTGTGTGTG  
TGTTGTGTGTGTTTAAATTTTTTAAAAAGTTTTTATTCGGAATCCGCG

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**FIGURE 482**

MDLYSTPAAALDRFVARRLQPRKEFVEKARRALGALAAALRERGGRLGAAAPRVLKTIVKGGSSGRGTALKGGCDS  
ELVIFLDCFKSYVDQRARRAEILSEMRALESWWQNPVPGRLRTFPEQSVPGALQFRLTSVDLEDWMDVSLVPAF  
NVLGQAGSAVKPKPVYSTLLNSGCQGGEHAACFTELRRNFVNIRPAKLKNLILLVKHWHYHQVCLQGLWKETLPP  
VYALELLTIFAWEQGCKKDAFSLGEGRLTVLGLIQHQHLCVFWTVNYGFEDPAVGQFLQRHVKRPRPVIILDPAD  
PTWDLGNGAAWHWDLHAQEAASCYDHPCFLRGMGDPVQSWKGPGLPRAGCSGLGHPIQLDPNQKTPENSKSLNAV  
YPRAGSKPPSCPAPGPTAEPASYPSPVPGMALDLSQIPTKELDRFIQDHLKPSPOFQEQVKKAIIDILRCLHENCV  
HKASRVSKGGSFGRGTDLRDGCDELIIIFLNCFTDYKDQGPRAEILDEMRAHVESWWQDQVPSLSLQFPEQNVP  
EALQFQLVSTALKSWTDVSLLPADFDAVGQLSSGTPNPQVYSRLLTSGCQEGEHKACFAELRRNFMNIRPVKLKN  
LILLVKHWHYRQVAAQNGKGPAPASLPAYALELLTIFAWEQGCRQDCFNMAQGFRITVLGLVQQHQQLCVYWTVN  
YSTEDPAMRMHLLGQLRKPRPLVLDPADPTWNVGHGSWELLAQEAALGMQACFLSRDGTSVQPDVMPALLYQT  
PAGDLDFKIFSEFLQPNRQFLAQVNKAVDITCSFLKENCFRNSPIKVIKVVKGGSSAKGTALRGRSDADLVVFLSC  
FSQFTEQGNKRAEIISEIRAQLEACQQRQFEVKFEVSKWENPRVLSFSLTSQTMLDQSVDFDVLPADFALGQLV  
SGSRPSSQVYVDLIHSYSNAGEYSTCFTELQRFIIISRP TKLKSILRLVKHWHYQQCTKISKGRGSLPPQHGLELL  
TVYAWEQGGKDSQFNMAEGFRITVLELVTQYRQLCIYWTINYNKDKTVGDFLKQQLQKPRPIILDPADPTGNLGH  
NARWDLAKEAAACTSALCCMGRNGIPIQPWPVKA AV

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**FIGURE 483**

CACACCCTGCAGGACACCTCCTGGCACAACACCACCTTCTTTGGGGTTTTTCAAGCACAGTGGGGTGACATGTAC  
CTGTGGCCATCTGTGAGTACCAGTTGGAAGAGATCCAGCGGGTGTTTGAGGGCCCCCTATAAGGAGTACCATGAG  
GAAGCCCAGAAGTGGGACCGCTACACTGACCCTGTACCCAGCCCTCGGCCTGGCTCGTGCAATTAACAACCTGGCAT  
CGGCGCCACGGCTACACCAGCTCCCTGGAGCTACCCGACAACATCCTCAACTTCGTCAAGAAGCACCCGCTGATG  
GAGGAGCAGGTGGGGCCTCGGTGGAGCCGCCCCCTGCTCGTGAAGAAGGGCACCAACTTCACCCACCTGGTGGCC  
GACCGGGTTACAGGACTTGATGGAGCCACCTATACAGTGCTGTTTATTGACACAGGAGACGGCTGGCTGCTCAAG  
GCTGTGAGCCTGGGGCCCTGGGTTACCTGATTGAGGAGCTGCAGCTGTTTGACCAGGAGCCCATGAGAAGCCTG  
GTGCTATCTCAGAGCAAGAAGCTGCTCTTTGCCGGCTCCCGCTCTCAGCTGGTGCAGCTGCCCGTGGCCGACTGC  
ATGAAGTATCGCTCCTGTGCAGACTGTGTCCTCGCCGGGACCCCTATTGCGCCTGGAGCGTCAACACCAGCCGC  
TGTGTGGCCGTGGGTGGCCACTCTGGATCTCTACTGATCCAGCATGTGATGACCTCGGACACTTCAGGCATCTGC  
AACCTCCGTGGCAGTAAGAAAGTCAGGCCACTCCCAAAAACATCACGGTGGTGGCGGGCACAGACCTGGTGCTG  
CCCTGCCACCTCTCCTCCAACCTTGCCCATGCCCGCTGGACCTTTGGGGGCCGGGACCTGCCTGCGGAACAGCCC  
GGGTCTTTCTCTACGATGCCCGGCTCCAGGCCCTGGTTGTGATGGCTGCCAGCCCCGCCATGCCGGGGCCTAC  
CACTGCTTTTTCAGAGGAGCAGGGGGCGCGGTGGCTGCTGAAGGCTACCTTGTTGGCTGTCGTGGCAGGCCCGTCG  
GTGACCTTGAGGGCCCGGGCCCCCTGGAAAACCTGGGGCTGGTGTGGCTGGCGGTGGTGGCCCTGGGGGCTGTG  
TGCCTGGTGCTGCTGCTGCTGGTGTGCTCATTGCGCCGGCGGCTGCGGGAAGAGCTGGAGAAAGGGGCCAAGGCT  
ACTGAGAGGACCTTGGTGTACCCCTGGAGCTGCCAAGGAGCCACCAGTCCCCCTTCCGGCCCTGTCTGAA  
CCAGATGAGAACTTTGGGATCCTGTGCGTTACTACTATTAGATGGCTCCCTTAAGATAGTACCTGGGCATGCC  
CGGTGCCAGCCCGGTGGGGGGCCCCCTTCGCCACCTCCAGGCATCCAGGCCAGCCTCTGCCTTCTCCAACCTCGG  
CTTACCTGGGGGGTGGGCGGAACCTCAAAATGCCAATGGTTACGTGCGCTTACAACCTAGGAGGGGAGGACCGGGGA  
GGGCTCGGGCACCCCTGCCTGAGCTCGCGGATGAACTGAGACGCAAACTGCAGCAACGCCAGCCACTGCCCGAC  
TCCAACCCCGAGGAGTCATCAGTATGAGGGGAACCCCAACCGCTCGGCGGGAAGCGTGGGAGGTGTAGCTCCTA  
CTTTTGACAGGCACCAGCTACCTCAGGGACATGGCACGGGCACCTGCTCTGTCTGGGACAGATACTGCCAGCA  
CCCACCCGGCCATGAGGACCTGCTCTGCTCAGCACGGGCACTGCCACTTGGTGTGGCTCACCAGGGCACCAGCCT  
CGCAGAAGGCATCTTCTCCTCTCTGTGAATCACAGACACGCGGGACCCAGCCGCCAAAACTTTTCAAGGCAGA  
AGTTTCAAGATGTGTGTTTGTCTGTATTGTGACATGTGTTTGTGTGTGTGTATGTGTGTGTGCACGCGCGTGC  
GCGCTTGTGGCATAGCCTTCTGTGTTTCTGTCAAGTCTTCCCTTGGCCTGGGTCTCCTGGTGAGTCATTGGAGCT  
ATGAAGGGGAAGGGGTGCTATCACTTTGTCTCTCCTACCCCACTGCCCCGAGTGTGCGGCAGCGATGTACATAT  
GGAGGTGGGGTGGACAGGGTGCTGTGCCCTTCAGAGGGAGTGCAGGGCTTGGGGTGGGCCTAGTCCTGCTCCTA  
GGGCTGTGAATGTTTTAGGGTGGGGGGAGGGAGATGGAGCCTCCTGTGTGTTTGGGGGAAGGGTGGGTGGGGC  
CTCCCACTTGGCCCCGGGGTTCAGTGGTATTTTATACTTGCCTTCTTCTGTACAGGGCTGGGAAAGGCTGTGTG  
AGGGGAGAGAAGGGAGAGGGTGGGCCTGCTGTGGACAATGGCATACTCTCTTCCAGCCCTAGGAGGAGGGCTCCT  
AACAGTGTAACCTATTGTGTCCCCGCTATTTATTTGTTGTAAATATTTGAGTATTTTATATTGACAATAAAAT  
GGAGAAAATGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 484**

MYLSAICEYQLEEIQRVFEGPYKEYHEEAQKWDRYTDPVPSRPGSCINNWHRRHGYTSSLELPDNILNFVKKHP  
LMEEQVGPRWSRPLLVKKGTFNTHLVADRVGTGLDGATYTVLFDITGDGWLLKAVSLGPWVHLIEELQLFDQEPMR  
SLVLSQSKKLLFAGSRSQVLVQLPVADCMKYRSCADCVLARDPYCAWSVNTSRCVAVGGHSGSLLIQHVMTSDTSG  
ICNLRGSKKVRPTPKNITVVAGTDLVLPCHLSSNLAHARWTFGGRDLPAEQPGSFYDARLQALVVMQAQPRHAG  
AYHCFSEEQGARLAAEGYLVAVVAGPSVTLEARAPLENLGLVWLAVVALGAVCLVLLLLVLSLRRRLREELEKGA  
KATERTLVYPLELPKEPTSPPFRPCPEPDEKLWDPVGYYYSDGSLKIVPGHARCQPGGGPPSPPPGIPGQPLPSP  
TRLHLGGGRNSNANGYVRLQLGGEDRGGLGHPLPELADELRRKLQQRQPLPDSNPEESSV

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**FIGURE 485**

CAGTGCTGCGGGCTCCGGGCA**ATGG**ATGCCCCGGGGCCCTGGCCCAGACCGCCGCCCCCGGTCCGGGCAGGAAG  
GAGCTGAAGATCGTGATCGTGGGCGACGGCGGCTGCGGCAAGACCTCGCTGCTCATGGTGTACAGCCAGGGCTCC  
TTCCCCGAGCACTACGCCCCATCGGTGTTTCGAGAAGTACACGGCCAGCGTGACCGTTGGCAGCAAGGAGGTGACC  
CTGAACCTCTACGACACGGCCGGGCAAGAAGACTATGACCGGCTGCGGCCCCCTGTCCTACCAGAACACCCACCTC  
GTGCTCATCTGCTATGACGTCATGAATCCCACCAGCTACGACAACGTCCTCATCAAGTGGTTCCCTGAGGTACG  
CATTTCTGCCGCGGGATCCCCATGGTGCTCATCGGCTGCAAGACAGACCTGAGGAAGGACAAGGAGCAGCCGCGG  
AAGCTCCGGGCCGCCAGCTGGAGCCCATCACCTACATGCAGGGCCTGAGCGCCTGCGAACAGATCCGAGCTGCT  
CTCTACCTGGAATGTTCCGCCAAGTTTCGGGAGAAATGTGGAGGACGTCTTCCGGGAGGCCGCCAAGGTGGCTCTC  
AGCGCTCTGAAGAAGGCGCAACGGCAGAAGAAGCGCCGGCCCTGCCTGCTGCT**CTG**ACCCAGGGCAGACAGACCT  
CACGACAGCACTGACAGGGCCCCGGGGGCCAGGTGCCGATTGCACCAGGGAGGCTGCCCCATCCCGACCCTCCAG  
CTCATGGTGTCTGGGGCCTGCGGCTAGACTCTTGGAACATTCTGGAACCTCTCTCCTTTCTGGCTGGGGCTCTGA  
CCACAACTCCCCCTCAGGCTGCCCCGAGGACATGGTGGTGTATGTGGGTGCAGGAGCCAGTGTCTGTTGTCGGGA  
CTCGCAAGTGCCCTCATCACAGCCACCCCCACCACGAGTGTCTCCCCAGTGCAGACTCAAGTTATGCTTGAAATG  
AAAAAGTCTATCTGGTAGTGGGTAAACGTAGACCTGGCACTGTTCCACGCGGGCGCCCCAAGCCTGCCACTCCTG  
TGTCCCTGCCTCCCTGGGCTCCCGAGATAGGCACCACTGTATCCTCCAGCTCCTTCCTTCCTTCCCCAGGAACA  
CGGAGGCCACCGAGGGGGCTGGGCCTATCAGGAGGACACAGGCTGCAGCCTGGCACCCACCCCTCCCATCTCCAC  
CCCACATGGAAGACTTGTCTTCAACTTGGCCACTGTCTTTCAGAGCTGGGCACATGTGCCAGGGGGCAGAAAA  
AATGGCTTCTCAGTTGTTAAAAGTATACCCTGGACCACCCATCTGACCATCTCCTTAAGGTTTCACCCAAAGCCC  
CCAGTGTGAGAGACTTGGGATGGGAAGAACAGTCGGCTCCAGTGTGGTCATGAGCAAGTTTTCTGTGGACTGTT  
CCCCCACTGCGGCAGGACAGGACTGGCCCACTTAGTCCTCAAGCTCCCAACCTGCTGTCCCTCAAGCCCCGCTT  
CTACCAGCCTGTGGAGTTTCAGGAGGCGAGACATCCTGGCCTCCTTTGAGAACTGATGGGATCTACCCCTGTCCA  
CGCGGGACAGTTTTCTCAGAACTGGTTCATAGACCACCTGTGTACCAACAGCCAGATACCTAATCCCTGAGCCTC  
CTTTGGGAAGGTCTGGGGCCGAGGGTCTGGGAATTTTTTTTTTTTTTTTTTTTTTTGGGACAGAGTCTCATTCTG  
TCACTCAGGCTAGAGTGCAGTGGCATGATCTTGGCTCACTGCAAGCTCCACCTCCTGGGTTCAAGCGATTCTCTT  
GCCTCAGCCTCCTGAGTAGCTGGGACTACATGCGCACACCACCACGTCCGGCTAATTTTTGTATTTTTTAGTAGAG  
ACAGGGTTTTACCATGTTGGCCAGGCTGGTCTTGAACCTCTGACCTCGTGATCCACCCGCCTTAGCCTCCCAAAG  
TGCTGGGATTACAGGCGTGAGCCACCGTGCCCGGCCAGGACTTTTAAACAAGCATCCCAGGGGATTCCGGTGC  
CCACCAGAAGTCGCAAGCTGCTTGGCTCTGGAGGGCGCCTAGGAGTCGGTGTGCGCTAAGATGGGATAATGGCTT  
CAGGCAACTCCCAGCCTTCCCCATATCTCCTGCCTCAGCCCCCTGGCCCAGTGCTGGGGCGTCAGCTAAACCTG  
AGCTTCCAAGAAGTCAGGTTGCCAAAGGAAGAAGCCTTCTGAGACCCTCCCCAACCCACCCAGGTTCCCAAGGCC  
CTGCCGTACCCTGGGGAATCAACCAAGGAGTTCTTGTCTCGAAGAACCCAGGCCTCATGATGGTCTACGGTAG  
AGGTCCAACAACCTACAGCCTGTGGGCCACATCTGGCCACAGCCTGATTTGTAAATAAAGTTTTATTGGAACACAA  
AAAAAAAAAAAAAAAAAAAAA

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**FIGURE 486**

MDAPGALAQTAAPG7GRKELKIVIVGDGGCGKTSLLMVYSQGSFPEHYAPSVFEKYTASVTVGSKEVTLNLYDTA  
GQEDYDRLRPLSYQNTHLVLICVDVMNPTSVDNVLKWFPEVTHFCRGIPMVLIGCKTDLRKDKEQPRKLRAAQL  
EPITYMQGLSACEQIRAALYLECSAKFRENVEDVFREAAKVALSALKKAQRQKKRRPCLLL



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**FIGURE 487**

GGCACGAGCGCGGCGTTACGGGAATTGTTTCGCTTTAGTGCCGGCGCCATGGGGTCTGGAGCTGATCGGGCGCCTA  
GCCCCGCGCCTGGGCCTCGCCGAGCCCGACATGCTGAGGAAAGCAGAGGAGTACTTGCGCCTGTCCCGGGTGAAG  
TGTGTCGGCCTCTCCGCACGCACCGAGACCAGCAGTGCAGTCATGTGCCTGGACCTTGCAGCTTCCTGGATG  
AAGTGCCCTTGGACAGGGCTTATTTAATTAAACTTTCTGGTTTGAACAAGGAGACATATCAGAGCTGTCTTAAA  
TCTTTTGAGTGTCTTACTGGGCCTGAATTCAAATATGGAATAAGAGACCTAGCTGTACAGTTTAGCTGTATAGAA  
GCAGTGAACATGGCTTCAAAGATACTAAAAAGCTATGAGTCCAGTCTTCCCCAGACACAGCAAGTGGATCTTGAC  
TTATCCAGGCCACTTTTCACTTCTGCTGCACTGCTTTTTCAGCATGCAAGATTCTAAAGCTGAAAGTGGATAAAAAAC  
AAAATGGTAGCCACATCCGGTGTAAAAAAGCTATATTTGATCGACTGTGTAAACAAGTAGAGAAGATTGGACAG  
CAGGTCGACAGAGAACCTGGAGATGTAGCTACTCCACCACGGAAGAGAAAGAAGATAGTGGTTGAAGCCCCAGCA  
AAGGAAATGGAGAAGGTAGAGGAGATGCCACATAAACACAGAAAGATGAAGATCTGACACAGGATTATGAAGAA  
TGGAAAAGAAAAATTTTGGAAAATGCTGCCAGTGC TCAAAGGCTACAGCAGAGTGAATTTTTCAGCTTCCAAACTGG  
TATACATTCCAAACTGATAGTACATTGCCATCTCCAGGAAGACTTGACGGCTTTGGGATTTTGTTTAACTTTTA  
TAATAAGGATCCTAAGACTGTTGCCTTTAAATAGCAAAGCAGCCTACCTGGAGGCTAAGTCTGGGCAGTGGGCTG  
GCCCCTGGTGTGAGCATTAGACCAGCCACAGTGCC TGATTGGTATAGCCTTATGTGCTTTCTACAAAATGGAAT  
TGGAGGCCGGGCGCAGTGGCTCACGCCTGTAATCC CAGCACTTTGGGAGGCCAAGGTGGGTGGATCACCTGAGGT  
CAGGAGCTCGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAAATTAGCCAGGTGTG  
ATGGTGCATGCCTGTAATCCCAGCTCCTCAGTAGGCTGAGACAGGAGCATCACTTGAACGTGGGAGGCAGAGGTT  
GCAGTGAGCCGAGATTGCACCACCGCACTCCAGCC TGGGTGACAGAGCGAGACTTATCTCATAAAATAAATAGATA  
GATACTCCAGCCTGGGTGA CAGAGCGAGACTTATAGATAGATAGATAGATAGATGGATAGATAGATAGATAGATA  
GATAGATAGATAAACGGAATTGGAGCCATTTTGCT TTAAGTGAATGGCAGTCCCTTGTCTTATTCAGAATATAAA  
ATTCAGTCTGAATGGCATCTTACAGATTTTACTTCAATTTTGTGTACGGTATTTTTTATTTGACTAAATCAATA  
TATTGTACAGCCTAAGTTAATAAATGTTATTTATATATGCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 488**

MGSELIGRLAPRLGLAEPDMLRKAE EYLRLSRVKCVGLSARTTETSSAVMCLDLAASWMKCPLDRAYLIKLSGLN  
KETYQSCLKSFECLLGLNSNIGIRDLAVQFSCIEAVNMASKILKSYESSLPQTQQVDLDLSRPLFTSAALLSACK  
ILKLVKVDKNKMOVATSGVKKAI FDR LCKQLEKIGQQVDREPGDVATPPRKRKKIVVEAPAKEMEKVEEMPHKPQKD  
EDLTQDYEEWKRKILENAASAQKATAE

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**FIGURE 489**

ACAAGCAGAAAGTCAATTGTCCGGTCCCACCTTACAACCTCATCAAAGCTGTGAGCCAGTTAATAGCCGATGCTGGGA  
TTGGAGGCTCTCGGTTTCAACATTTCGCTTGCAATTACCAATAATTTGCGCAATGGAGATAAGCAAATGAAAAACA  
GCAATTTCCAGCAGAGGTGAAGGACCTGACTAAGCGTATAAGGACTGTTTTGATGGCCACAGCTCAGATGAAGG  
AGCACGAGAAGGACCCCGAGATGCTGGTGGATCTCCAGTACAGCCTGGCAAACCTCTACGCAAGCACTCCTGAAC  
TACGCAGGACCTGGCTGGAAAGTATGGCCAAGATTATGCCAGAAACGGAGATTATCTGAGGCTGCCATGTGTT  
ACATCCATATTGCTGCTCTCATTGCAGAGTATCTGAAAAGAAAGGGTTACTGGAAAGTGGAAAAGATTTGCACAG  
CATCCCTGCTCTCGGAGGATACCCACCCCTGTGATAGCAACTCATTACTAACAACCTCCAGTGGAGGAAGCATGT  
TCTCTATGGGATGGCCAGCTTTTTTGTAGCATTACACCAAACATTAAGGAAGAAGGAGCGATGAAAGAGGATTCTG  
GAATGCAAGATACACCATAACAATGAGAATATCCTGGTGGAGCAGCTATACATGTGTGTGGAGTTTCTCTGGAAGT  
CTGAGCGATATGAACTCATTGCTGATGTCAACAAGCCCATCATTGCTGTCTTTGAGAAAACAACGAGACTTCAAAA  
AATTGTCAGATCTCTACTACGACATTCATCGGTCAATCTGAAAGTGGCAGAGGTGGTGAATTCGGAGAAGCGGC  
TGTTTGGTCGCTACTATCGTGTGGCATTTTATGGGCAGGGCTTTTTTGAAGAAGAAGAAGGTAAAGAGTATATTT  
ATAAAGAGCCTAAGCTGACAGGTCTGTCCGAGATTTCCAAAGATTACTCAAGCTCTATGCAGATAAATTTGGAG  
CAGACAATGTGAAGATAATCCAGGATTCCAACAAGGTAAACCCCAAGGATTTGGACCCCAATATGCCTACATCC  
AGGTGACCTATGTGACGCCGTTCTTTGAGGAAAAGGAAATCGAAGACCGGAAGTCAGATTTTCGAAATGCACCACA  
ACATCAACCGCTTTGTCTTCGAGACACCCTTCACGCTGTGCGGCAAGAAGCACGGTGGGGTGGCGGAGCAGTGCA  
AGCGGCGGACGATCCTGACAACGAGTCACCTGTTCCCTACGTGAAGAAGAGAATACAAGTAATTAGCCAATCGA  
GCACAGAAGTGAATCCAATTGAAGTGGCAATTGACGAGATGTCCAAGAAGGTTTCTGAGCTTAATCAGCTTTGCA  
CAATGGAAGAAGTGGACATGATCAGACTGCAGCTCAAACCTGCAAGGAAGTGTGACCGTGAAGGTTAATGCTGGGC  
CAATGGCCTATGCACGAGCTTTTCTTGAAGAAACCAATGCAAGAAGTACCCTGACAACCAAGTAAAGCTTTTGA  
AGGAGATCTTCAGGCAATTTGCAGATGCATGTGGGCAGGCCCTTGACGTGAATGAGCGCCTCATCAAAGAGGACC  
AGCTGGAGTACCAGGAAGAACTGAGGTCCACTACAAGGACATGCTCAGCGAACTCTCCACAGTCAATGAGCA  
GATTACGGGCAGGGACGACCTGTCAAAGCGCGGAGTGGACCAAACCTGCACTCGAGTAATTAGCAAAGCAACTCC  
GGCCCTACCCACGGTCTCCATCTCATCTAGTGCTGAAGTCTGAGGGCTCTGCAGCATCAGACCCACCTCTAAGAG  
AACTTTCTGAATTTGCAGCTAATCTCGGGGAAGAGAAAGATAGGTTTAATTTATTTGAAGTTTTCATGGTGTAA  
TATTTTTGTTTACCTCGCTAGCTTCAGAAATTTGCCAACCTCTGAATTTGCACATTTTGTATAATTTTTTTTTTC  
TTTGAGCAGTGTGATCAAGCCAAGTTGAATATTTGCCATGAAATTCAGTGAATGTGTAGCTCAAATGCAAACC  
ATAAGTTTGCTGTCAGTTATTGTATGGTCAGTACCCAGTCCTAGTACACATATTTTAAAGGTTAAAGTGAATGT  
TTTTGTAACATTTAAGCATATTTAGATGTAAATAAAAGATTGTAAATATACGGTTTTTACCAAATTTAAAGA  
TCCTTTTTAGTTAATACTATGACAGTACTAAAAATATATGAATAACATTTAGATACCATTATATTAATAATTT  
GTGTATGTGTACAAAAGCGTTGATAAAATACTAATCTTTAAAGTTTGTGGAGTTCTTTTATTTGTAATATATGTGC  
TCTTAAAGCAATGGGATGTGAAATTATGAAAGTATTTTATTGTTTCATAGAAATAAAAAACACAGTTACTTTGCA  
AAAAAAAAAAAAAAAAAAAAA

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**FIGURE 490**

MKNSNFP AEVKDLTKRIRTVLMATAQMKEHEKDPEMLVDLQYSLANSYASTPELRRTWLESMAKIHARNGDLSEA  
AMCYIHIAALIAEYLKRKGYWKVEKICTASLLSEDTHPCDNSNLLTTPSGGSMFSGWPAFLSITPNIKEEGAMK  
EDSGMQDTPYNENILVEQLYMCVEFLWKSEYELIADVNP IIAVF EKQRDFKKLS DLYYDIHRSYLKVAEVVNS  
EKRLFGRYYRVAFYGGGFFEEEGKEYIYKEPKLTGLSEISQRLLKLYADKFGADNVKIIQDSNKVNP KDLPKY  
AYIQVTYVTPFFEEKEIEDRKSD FEMHHNINRFVFETPFTLSGKKHGGVAEQCKRRTILTSHLFPYVKKRIQVI  
SQSSTELNPIEVAIDEMSKKVSELNQLCTMEEVDMIRLQLKLQGSVSVKVNAGPMAYARAFLEETNAKKYPDQV  
KLLKEIFRQFADACGQALDVNERLIKEDQLEYQEELRSTTRTCSANSPQS

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FIGURE 491A

CAGTCGCGCGCGGTGCAGTCGGGAGGTGGAGGCACCGGCTGCATTGTTTTCGGGATCGAGGGGTGAGGGCGCTAT  
GGCACCCGGCTGCAAACTGAGTTACGCAGCGTGACAAATGGTCAGTCTAACCAACCAAGTAATGAAGGTGATGC  
CATCAAAAGTTTTTGTGCGAATTCGTCTCTCTGCAGAAAGATCTGGGTGAGCTGATGGAGAGCAGAAGTTATGCTT  
ATCTGTGCTGTCTCCACGAGTCTCCGGCTGCACTCCAACCTGAGCCCAAGACCTTCACGTTTGATCATGTTGC  
AGATGTGGATAACCACTCAGGAATCTGTATTTGCAACTGTGGCTAAAAGCATTGTGGAGTCTTGCATGAGCGGTTA  
TAATGGTACCATCTTGCATATGGACAGACTGGCTCAGGGAAGACATTTACTATGATGGGACCATCTGAATCTGA  
TAATTTTTCTCATAACCTGAGAGGAGTAATCCACGAAGTTTTGAATATTTGTTTTCTTAATTGATCGTGAAAA  
AGAAAAGGCTGGAGCTGGAAAGAGTTTCTTTGTAAGTGTTCTTTATTGAAATCTACAACGAGCAGATATATGA  
TCTACTGGACTCTGCATCGGCTGGACTGTACTTAAGGGAGCATATCAAGAAGGGAGTCTTTGTTGTTGGTGCGGT  
GGAGCAGGTGGTAACCTCAGCTGCTGAAGCCTATCAGGTGCTGTCTGGAGGATGGAGGAATAGACGTGTGGCATC  
AACATCAATGAACAGAGAATCGTCTAGGTCTCATGCCGTCTTTACAATTACAATAGAGTCAATGGAGAAAAGTAA  
TGAGATTGTGAATATACGGACCTCCCTACTCAACCTGGTGGATTTAGCAGGATCTGAAAGGCCAAAAGATACCCA  
TGCAGAAGGGATGAGATTGAAGGAAGCAGGTAACATAAATCGATCATTGAGCTGCCGCGGCAAGTGATTACAGC  
ACTTGTGACGTGGGTAAATGGAAAACAGAGACATGTTTGCTACAGAGACTCCAACTTACCTTCTTACTACGGGA  
TTCCCTTGGAGGTAATGCCAAAACAGCCATAATTGCAAATGTTTCATCTCGGATCCAGGTGTTTTGGGGAAACCTT  
ATCAACACTTAACTTTGCTCAAAGAGCCAAGCTGATTAAAAACAAGGCAGTAGTAAATGAAGACACCCAAGGAAA  
TGTGAGCCAGCTCCAAGCTGAAGTGAAGAGGCTCAAAGAACAAGTGGCGGAGCTTGCTTCAGGACAGACACCACC  
AGAAAGCTTCTGACCAGAGACAAAAAGAAGACTAATATATGGAGTATTTCCAGGAAGCAATGTTATTCTTTAA  
GAAATCTGAACAGGAAAAAGAGTCTCTGATAGAAAAAGTTACCCAATTAGAAGACCTCACCTCAAAAAGGAAAA  
ATTTATTCAATCTAATAAAATGATTGTGAAATTCCGAGAGGATCAAATAATACGCTTGAAAAAGCTCCACAAGGA  
ATCCCGGGGAGGTTTTCTGCCGTGAGGAGCAGGATCGTTTGCTCTCAGAATTAAGGAATGAGATTCAAACCTCTGCG  
AGAACAAATAGAGCACCACCCAGAGTTGCAAAGTATGCTATGGAATAATCATTCCCTCAGGGAGGAGAATAGAAG  
ACTGAGATTATTAGAGCCTGTGAAAAGAGCTCAAGAAATGGATGCCCAGACCATTGCAAACTAGAAAAAGCTTT  
CTCTGAAATAAGTGGCATGGAGAAAAAGTGACAAAAATCAGCAAGGATTTTCACCTAAAGCTCAGAAAGAGCCATG  
TTTGTGTTGCAAACTGAGAAGTTAAAAGCACAACTCCTGCAAATTCAGACAGAGCTGAATAATTCAAAGCAAGA  
ATATGAAGAATTCAAAGAAGCTTACTAGGAAAAGGCAGCTAGAATTGGAATCAGAGCTTCAGTCTTTGCAAAAAGC  
GAACCTTAATCTTGAAGAACTTTTGGAAGCAACAAAAGCCTGCAAGCGGCAAGAAGTTTCTCAGCTGAATAAAAT  
TCATGCTGAAACACTTAAGATTATACTACACCAACCAAGGCCTACCACTTCATTCCCGACCAGTACCAAAATT  
AAGCCCTGAAATGGGAAGCTTTGGCTCTCTATACACTCAGAATTCATAGCATATTAGATAATGATATATTAAATGA  
GCCAGTTCCCTCCTGAGATGAATGAACAAGCTTTTGAGGCCATTTCTGAAGAGCTTAGAACAGTGCAGGAACAAAT  
GAGTGCTCTTCAAGCCAACTGGATGAAGAAGAGCATAAAAACCTAAAGCTTCAGCAGCATGTTGACAACTGGA  
ACATCATTCTACCCAAATGCAGGAGCTTTTCTCATCAGAAAGAATTGATTGGACCAACAGCAGGAAGAGCTTCT  
CTCAGAGTTGAATGTCCTTGAAAAGCAGCTTCAAGAGACTCAAATAAAATGACTTTTTGAAAAGTGAGGTACA  
TGACCTGCGAGTAGTCTTCATTCTGCTGACAAGGAGCTTTCTTCAGTGAAATTGGAATATAGTTTATTCAAAC  
GAATCAGGAGAAAGAATTCAACAACTTTCTGAAAAGACACATGCATGTACAGCTTCAATTAGATAATCTCAGGTT  
AGAAAACGAAAAGCTGCTTGAGAGCAAAGCCTGCCACAGGATTCTATGACAACCTTACAAGAAATAATGAAATT  
TGAGATTGACCAACTTTCAAGAAACCTCCAAAACCTCAAAAAAGAAAATGAACTCTGAAATCTGATCTGAATAA  
TTTGATGGAGCTTCTTGAGGCAGAAAAAGAACGCAATAACAAATTATCATTACAGTTTGAAGAAGATAAAGAAAA  
CAGTTCTAAAGAAATCTTAAAGTTCTTGAGGCTGTACGTGAGGAGAAACAGAAAGAGACGGCCAAGTGTGAGCA  
GCAGATGGCAAAAGTACAGAACTAGAAGAGAGCTTGCTTGCTACTGAAAAGTGATCAGTTCCCTGGAAAAGTC  
TAGAGATTCTGATAAGAAAGTTGTAGCTGACCTCATGAACCAGATCCAGGAGCTAAGAACATCGGTCTGTGAGAA  
AACAGAACTATAGACACCCTGAAACAAGAAGTGAAGGACATAAATTGCAAATACAACCTCTGCTTTGGTTGACAG  
AGAAGAGAGCAGAGTGTTGATCAAGAAGCAGGAAGTGATATTCTGGATCTGAAAGAAACCTTAGGCTGAGAAT  
ACTTCTGAGGACATAGAGAGGGATATGCTCTGTGAGGACCTGGCTCATGCCACTGAGCAGCTGAACATGCTCAC  
AGAGGCCTCAAAAAACACTCGGGGCTGCTGCAGTCTGCCAGGAAGAACTGACCAAGAAGGAAGCCCTGATTCA  
GGAACCTCAGCACAAAGCTAAACCAAAAGAAAGAGGAAGTAGAACAGAAGAAGTGAATATAACTTCAAAATGAG  
GCAACTAGAACATGTGATGGATTCTGCTGCTGAGGATCCCCAGAGTCCCTAAGACACCACCTCACTTTCAAACACA  
TTTGCAAACTCCTGGAAACACAAGAACAAGAGATAGAAGATGGAAGAGCCTCTAAGACTTCTTTGGAACACCT

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**FIGURE 491B**

TGTAACAAAGCTAAATGAAGACAGAGAAGTCAAAAATGCTGAAATCCTCAGAATGAAGGAGCAGTTGCGTGAAAT  
GGAAAACCTACGCCCTGGAAAGTCAGCAGTTAATAGAGAAAACTGGCTCCTGCAAGGTCAGCTGGATGATATTAA  
AAGACAAAAGGAAAACAGTGATCAGAATCATCCAGATAATCAACAGCTGAAGAATGAACAAGAAGAAAGTATCAA  
AGAAAGACTTGCAAAAAGTAAAATAGTTGAAGAAATGCTGAAAATGAAAGCAGACCTAGAAGAAGTCCAAAGTGC  
CCTTTACAACAAAGAGATGGAATGCCTTAGAATGACTGATGAAGTCGAACGAACCCAAACTTTGGAGTCTAAAGC  
ATTCCAGGAAAAAGAACAACTGAGATCAAAGCTGGAAGAAATGTATGAAGAAAGAGAGAGAACATCCCAGGAGAT  
GGAAATGTTAAGGAAGCAGGTGGAGTGTCTTGCTGAGGAAAATGGAAAGTTGGTAGGTCACCAAATTTGCATCA  
GAAGATTCAGTACGTAGTGCCTAAAGAAGGAAAATGTCAGGCTTGCTGAGGAGACAGAAAAGTTGCGTGCCGA  
AAATGTATTTTTAAAAGAAAAGAAAAGAAGTGAATCTTGAGAGGATTCCGGTCAGCTACCTAGGCATCACCTTGTTT  
GAAGATGTTTCTTCTCTTTTACAAGTAAGACCTACTCCTGGCCACTTAGGAGAGCTGAATTTATGGACCTTAATT  
ATTAAATGTTTATAAGGTGGTGGTAACCACTCAAGTTTCTGATGAACATTCTGCATCCATATACACCCTGTGAC  
AGTCAGCAGTCTGCTATTAAGTGGCCTACTTCAAGGCTTTGAATCAACTTAAGGGAAAACCTTTTGTCTTTGTAA  
AAATAAAAGCCTGTAGCTAAGGTTTACAGTGGACATTAGCCAGATCATTTTCTTCTTAGATTATGCCATAATCTC  
CTTTGATTCTTATGGAAGTTCTAACAATATATGGTGGTTCCAACACCTGCAGTGAGTTTAAATGACTGACTTAGTA  
GCAGGTACAAGAAGCAAACCTTGTTAATATAGATTATTTTTGTATTCTTACTTTAGGTATTTTACTTGAGCATTTT  
CCATGACTGTAAATAAAGCCATTTTTTAAGATAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 492**

MAPGCKTELRSVTNGQSNQPSNEGDAIKVFVRIRPPAERSGSADGEQNLCLSVLSSTSLRLHSNPEPKTFTFDHV  
ADVDTTQESVFATVAKSIVESCMSGYNGTIFAYGQTGSGKFTTMMGPSESDNFSHNLRGVIPRSFEYLFSLIDRE  
KEKAGAGKSFLCKCSFIEIYNEQIYDLLDSASAGLYLREHIKKGVFVVGAVEQVVTSAAEAYQVLSGGWRNRRVA  
STSMNRESSRSHAVFTITITESMEKSNEIVNIRTSLLNLVDLAGSERQKDTAEGMRLKEAGNINRSLSCLGQVIT  
ALVDVGNGKQRHVRCYRDSKLTFLLRDSLGGNAKTAIIANVHPGSRFCGETLSTLNFAQRAKLIKNAVVNEDTQG  
NVSQQLQAEVKRLKEQLAELASGQTPPESFLTRDKKKTNYMEYFQEAMLFKKSEQEKSLIEKVTQLEDLTLKKE  
KFIQSNKMIVKFREDQIRLEKLHKESRGGFLPEEQDRLLSELRNEIQTLREQIEHHPRVAKYAMENHSLREENR  
RLRLLEPVKRAQEMDAQTIKLEKAFSEISGMEKSDKNQQGFSPKAQKEPCLFANTEKLKAQLLQIQTELNNKQ  
EYEEFKELTRKRQLELESELQSLQKANLNLENLLEATKACKRQEVSQLNKIHAETLKIITPTKAYQLHSRPVPK  
LSPMGSGFGLYTQNSSILDNDILNEPVPPPEMNEQAFEAISEELRTVQEQMSALQAKLDEEEHKNLKLQQHVDKL  
EHHSTQMQLFSSERIDWTKQQEELLSQLNVLEKQLQETQTKNDFLKSEVHDLRVVLHSADKELSSVKLEYSSFK  
TNQEKEFNKLSERHMHVQLQLDNLRLENEKLESKACLQDSYDNLQEIMKFEIDQLSRNLQNFKKENETLKSDLN  
NLMELLEAEKERNKLSLQFEEDKENSSEIKLVLEAVRQEKQKETAKCEQQMAKVQKLEESLLATEKVISSLEK  
SRSDKKVVADLMNQIQELRTSVCEKTETIDTLKQELKDINCKYNSALVDREESRVLIKKQEVLDLKLKETLRLR  
ILSEDIERDMLCEDLAHATEQLNMLTEASKKHSGLLQSAQEELTKKEALIQELQHLNQQKKEVEQKKNEYNFKM  
RQLEHVMDSAAEDPQSPKTPPHFQTHLAKLLETQEQEIEDGRASKTSLEHLVTKLNEDREVKNAEILRMKEQLRE  
MENLRLESQQLEKNWLLQGQLDDIKRQKENSQDNHPDNQQLKNEQEESEIKERLAKSKIVEEMLKMKADLEEVQS  
ALYNKEMECLRMTDEVERTQTLESKAFQEKELRSKLEEMYEEERTSQEMEMLRKQVECLAENGKLVGHQNLH  
QKIQYVVRLLKENVRLAEETEKLRANVFLKEKKRSES

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**FIGURE 493**

GCCCAGGCCTGGCTGAGGCGCCGCGGGTCCCTCTCCACCTGCCGGGCGGAGCGACGCGGCCCATGGGCTGAG  
 CCCCCTGAGCCCCGCGGGCCGCCATGGGCGATCGCGAGCGCAACAAGAAGCGGCTGCTGGAGCTGCTGCGGGC  
 GCGGACACAGGCAACGCGCACTGCGCGGACTGCGGGGCGGCAGATCCCGACTGGGCTCTTACAAGCTGGGGAT  
 CTTTCATCTGTCTCAACTGCTGCGGCGTCCACCGTAACTTCCCTGACATCAGCAGAGTTAAATCTGTGCGACTTGA  
 CTTCTGGGACGACAGTATTGTGGAGTTTATGATCCACAATGGAACCTCCGTGTGAAGGCCAAGTTCGAAGCCAG  
 AGTCCCAGCTTTCTACTACATCCCCCAGGCCAACGACTGCCTGGTCTTAAAGGAACAATGGATTTCGAGCTAAGTA  
 TGAGAGACGGGAATTTATGGCTGATGGGGAAACCATCTCGCTCCCGAGGTAACCGAGAAGGATTTCCTGTGGAAGCG  
 AGGAAGGGACAACCTCACAGTTTCTGAGAAGGAAGTTTGTACTTCTGGCAAGAGAAGGCCTCCTGAAGTACTTCAC  
 AAAGGAACAGGGTAAAGGCCCCAAAGCTGTCATCAGCATTAAAGGACTTGAATGCCACCTTCCAGACAGAGAAGAT  
 AGGGCACCCCCATGGGCTGCAGATCACCTACAGGAGAGATGGCCACACCAGGAACCTGTTTGTGTATCATGAAAG  
 TGGGAAGGAGATAGTGGACTGGTTCAATGCCCTCCGTGCAGCCCGTCTGCAGTACCTAAAAATGGCCTTTCTCTGA  
 ACTCCCAGAGTCTGAGCTCGTGCCATTCTCACCAGGAACTACCTCAAACAAGGCTTCATGGAAAAGACTGGGCC  
 AAAGCAGAAAGAACCTTTCAAGAAAAAGGTGGTTTCGCCCTGGATTGCCATGAGCGGAGGCTGCTCTATTACAAGAA  
 CCCACTGGATGCCTTCGAGCAGGGCCAGGTTTTTCTTGGGAACAAGGAGCAGGGATATGAAGCCTACGAAGACCT  
 GCCCAAGGGCATCCGAGGAAATCGCTGGAAAACCGGACTACCATTTGTCACCCAGAGCGGAGATTGTCTCTAC  
 TTGCCCCAGTGAGAAGGAACAGCAGGAATGGCTGGAAAGTTTGCGGGGTGTCTGTCCAGCCCCCTTGACGCCCT  
 CAACCGGCTTACTGCATCAACAGAGAGTGGCCGCAGCAGCAGGTGAACCATTAACTGAGGAAGTGGCTGCCACTG  
 AACACCTGGAAGTCTTTGTGGGAAGAAGTTTGCACCTCGGCCCTGGCTGCCACCATCAGTGCCCCGCAGTCAGC  
 AGCCATTCTGGCAGTGAAGTCTGCCAGGACTGAAAGTGTGGCTTTATCCATCAGCTCCCTGGGCCTTCCCCGCA  
 ACCACCTCGGGGATCTGAGGATCTGGTGCATAGATGAACATCTATCCCTCCTCCCCATACACACCTAGGCTT  
 GAAATGCCCTACAGGCCCAGAACTTTCTCACATCTGAAATGGAGGCATTGCAATGAAAAGGCACCCACAGCATCA  
 TGCAAGTGGCATCTTGTAAAAAAAAAAAAAAAAAAGTTAATCTGAATCTAACCATGAGGAAATAATCAGACAAATCC  
 ACATTAGGGGCATTCTGCTAAACATCTGACCCAGACTCTTCAMAAATGAAGAGTGAAAGATAAAGTAGTCAATGG  
 CCGGGCGCAGTGAGATTGCGCCATTGCATTCCAGCCTGGGTGACAGAGCGAGACTCCGTATCAGAAAGAAAAAGA  
 GGAAGTGAATGAAATCTCAGATGGCTGAAATGTTAGAGAAACAGAGACCAAGTCCCTGCTCTGTGACTCGTTG  
 TTCTTTCTCTGTCTTCAAGCACACGCAGAAATACACTGGATGTTCTCTCTTTGCTTCAATGGAGACCCAAGG  
 AGCTGGGAGGTCTCTTAAGAGACTCTCTGATTCTCCGTGGCTGGGTGTGATGGCTCATGCCATAATCCCAGCCC  
 TTTGGGAAGCTGAGGCAGGAGGATTGAGACCAGGAGTTCGAGAAGAGCCTGGGCAACATAGTGAGACCCCATCTC  
 TACAAAGAAAAAAAAAATTAGCTGGACATGGTAATGAATGCCTGTAGTCCCAGCTACTCCGGACACTGATGTGAGA  
 GGATCACTTGAGCCAGGGAGGTTCATGGCTACAGTGACCCCTCATTGCACCACTTTACTTAGCCTGGGTGACAGAG  
 TGAGACCCTATCTCAAAAAAAAAAAAAAAAAATCTATGCATTGTATGGGACTTTCCTTTGGATCCCCCAATCAAAGGAT  
 AAGCAATGCGTAAGCCTGTGTCTTCTCTGAAGCTTCTCGACTGCCAGATAGGGAGGTGAGTCTCTCTATCTCC  
 TCTGGCTCTGGAAGCACCTTGAAATGTGCATTTTCAAGGACACTTGCTGGGTGTGTCATTAAAGGCCAGTTTAC  
 TTGTCTGCCTCTTTGACCACCTGTGAAGTCTGTTGGGTGACTGTGCTAAGTTCTGGGGATGAGGAAATTAATAA  
 AGGTACAGTCTTGCCCTTCAAAAAAAAAA



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**FIGURE 494**

MGDRERNKKRLELLRAPDTGNAHCADCGAADPDWASYKLGIFICLNCCGVHRNFPDISRVKSVRLDFWDD SIVE  
FMIHNGNLRVKAKFEARVPAFYYPQANDCLVLKEQWIRAKYERREFMADGETISLPGNREGFLWKRGRDNSQFL  
RRKFVLLAREGLLKYFTKEQGKSPKAVISIKDLNATFQTEKIGHPHGLQITYRRDGHTRNLFVYHESGKEIVDWF  
NALRAARLQYLKMAFPELPESELVPFLTRNYLKQGFMEKTGPKQKEPFKKRWFALDCHERRLLYYKNPLDAFEQG  
QVFLGNKEQGYEAYEDLPKGIRGNRWKAGLTIVTPERRFVLTCPSEKEQQEWLESLRGVLSSPLTPLNRLTASTE  
SGRSSR

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**FIGURE 495**

GCCAAGATTCTGGCACGAGGCCGGCGTCCCAAGTGTAGTGGAGGGGGATCCCGACTCCAGTCCGGGGCCTTGGCC  
AGCGGAGCCGCGCTATTCGGAAGCGGGAATCCCACTCAGAGCCCCGGGCCTGTAGGGGCGGGGCGTCCCGGGCACC  
CGGGATTGGGGCGTCTCCCGTCTGTGCACCGGGGACCGGGCAGCTCACCCGGAAGGAGAAGCCGTGATCTGGCTAT  
ATGGTGGGGCGCGGGCGGTGTCTGTGGGGAGCTGGTGTCTTCTCAGATGTTTCTTCCAATGGGCCTTTGGT  
GTAGGATGTCGGAGAACCAAGAACAGGAGGAGGTGATTACAGTGCCTGTTCAGGACCCCCGAGTGCAGAATGAGG  
GCTCCTGGAACCTTATGTGGATTATAAGATATTCTCCATACCAACAGCAAAGCCTTTACTGCCAAGACTTCCT  
GTGTGCGGCGCCGCTACCGTGAGTTCGTGTGGCTGAGAAAGCAGCTACAGAGAAATGCTGGTTTGGTGCCTGTTT  
CTGAACCTTCTGGGAAGTCAACCTTCTTCGGCACCTCAGATGAGTTCATTGAGAAGCGACGACAAGGTCTGCAGC  
ACTTCCTTGAAAAGGTCTCTGCAGAGTGTGGTCTCTCTGTGCAGACAGCCAGTTGCACCTATTCTGCAAAGCCAGC  
TCTCGGTGCCTGAGATAGAAGCCTGTGTCCAGGGCCGAAGTACCATGACTGTGTCTGATGCCATTCTTCGATATG  
CTATGTCAAACCTGTGGCTGGGCCCCAGGAAGAGAGGCAGAGCTCTTCTCACCTGGCTAAAGGAGACCAGCCTAAGA  
GTTGCTGCTTTCTTCCAAGATCGGGTAGGAGGAGCTCTCCCTCACCGCCTCCAGTGAAGAAAAGGACCATTTAG  
AAGTGTGGGCTCCAGTTGTTGACTCTGAGGTTCTTCTTGGAAAGTCCCACTCTCCCACCCCTCTCTCACCAT  
TATGCTGTGATTTTGAAGACCCAAAGAGGGAACCTCCACTCTTCAGTCTGTGAGGAGGGCTGTGGGAGGAGATC  
ATGCTGTGCCTTTGGACCCTGGTCAGTTAGAAACAGTTTGGAAAAGTGAGCTCTCGGTTCTGCTCTGAGATGGT  
CAGAGAAGATGCGGGCCAGGAGACTTACTCAGGTGGGACTGGGCACAGGGCAGGTATGTGGGAGGCTGGGCTGCT  
TAGTGTCTTCTAGTCACCTCTGCTTGGGCTGATTGACAGAGGTGAGTCATTACAGCCCCCTTATGCCCTTTCCATG  
GGAACAAATACTGTGCAGATGTTTGTAAAGTTAAACATAAGACACAGGGGCTGTTGCTTTTGAACAGAACCCCTATA  
TTACTCTCTGGGATCTGAGTTTCTGCAGGTCAATTTGTATGTAGGACCAGGAGTATCTCCTCAGGTGACCAGTTT  
TGGGGACCCGATGTGGCAAATTTCTAAGCTGCCATATTGAACATCATCCCACTGGGAGTGGTTATGTTGTATCCC  
CATCTTGGCTGGCTTCAGTTTTTGTCTGTAGCCCTAGAGCACTTTGTTTGTGGGAGGCTGGCCTCTTGCTTACCTC  
CTTGATGGACAGGGGGATGAATATTTACTTTCCACCTCCTTGCTTTTTTCTTTCACTGATACCACTGAATGGAA  
CTGGTGTGTGACTCCTGCTGCTGGGGATTTATGTCCCAGACCTTAGCCTGGCTGAGTGGAGCCTGAGACCTGC  
ACAACAGCTCATGGTCATGCATGAGAGAGAAGTGGCTGGCCACAGCAGACGGGAACAGTAACAGCCCAGGGCCTT  
TATTTTGGGAAAGGCTGTCCGGGGCTGTTACTGTCTCTTCTGTTTATAAAGCAGACATGTGGCCATCTTTCCGC  
AGGGTTAGAGTGGGCTCCTTTCTTTTGGAAATCCTTTTCTTCTCCTTTGGTAGCAGCTCCCTGCCTCCAGGGCTT  
CCGCCACCAGCGTCTCTGCTGTGTTGCGCAGTGCAGTGGGGTGCAAGGGCTTTGTTTCTGCCTGCCTGAAAGAGA  
GGGCTCTGGGGATGGAGATGAGAAACAACACGCTCTCCTTCAGACAATGAGGCATTCTGTCTCCTGCTGCCATT  
CTTCATCTCCACTGAGAGCCAGAGCTGGTAGGAGCCGAGTGCCACAGGCATTCTGCATTGCTCTACTCTTAGGTT  
TGTGTGTGTGATCCTTCCCCTCCCTGTGCCCCACTCCTCCCTCCTCTGGCTATCCTACCCTGTCTGTGGGCTCTT  
TTACTACCAGCCTATGCTGTGGGACTGTGATGGCATTAGTTTCAAGTGGAGGGCTTTGGCCTGAAATAAAATGC  
AAGTATTT

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**FIGURE 496**

MSENQEQQEEVITVRVQDPRVQNEGSWNSYVDYKIFLHTNSKAFTAKTSCVRRRYREFVWLRKQLQRNAGLVPVPE  
LPGKSTFFGTSDEFIEKRRQGLQHFLEKVLQSVVLLSDSQLHLFLQSQLSVPEIEACVQGRSTMTVSDAILRYAM  
SNCGWAQEERQSSSHLAKGDQPKSCCFLPRSGRRSSPSPPPSEEKDHLEVWAPVVDSEVPSLESPTLPPLSSPLC  
CDFGRPKEGTSTLQSVRRVGGDHAVPLDPGQLETVLEK

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**FIGURE 497**

GGAAGCTCAGCAGTGTCCACTGTCGCCATTCCCTTGGCCATAGAAAAACAATGTATTTGAATTTTGATGTAAGCATA  
GCAAATTGAAGATGAAGATGACACGTTGATTTCTTGTTTGAAATTAACCAAGTCCCGAGAAAAAGAAAGTGAATAG  
TGTTAGCACGAGGAGGAAGGAAGAAATGGAGATTAGATTGGATACTCTTTCTGCATCACTGGGTAGATCCAGCAC  
TTTAAATGACTGCAACTTGGAAAGATAAATTAGCTTGGTATGAAGGTGAAGCTTACATGTGGCATCACTGGAAGCC  
TTTTCTGAAAACCTCTCTGGACATGTCTTGATTCCAAATAGCACAAAGTTGGACCCTGGGACTACTGCTCCTC  
TTGTATTGCGCCACACACGTCTCAAGTCTTCCTGCTCAGATATGGATCTCCTACATTCATGGCGAAGCAGCAGTTT  
TGGGAATTTTCGATCGTTTTTCGGAATAATTCTTTATCAAAACCAGATGATTCAACTGAGGCACATGAAGGAGATCC  
CACAAATGGAAGTGGAGAAACAAAGTAAACTTCAAATAATGGAGGCGGTTTGGGTAAAAAATGAGAGCTATTTTC  
ATGGACAATGAAGAAAAAGTGGGTAAAAAGTACATCAAAGCCCTTTCTGAGGAAAAGGATGAGGAAGATGGAGA  
GAATGCCCCACCCATATAGAAACAGTGACCCTGTGATTGGGACCCACACAGAGAAGGTGTCCCTCAAAGCCAGTGA  
CTCCATGGATAGTCTCTACAGTGGACAGAGCTCATCAAGTGGCATAACAAGCTGTTCAGATGGTACAAGTAACCG  
GGACAGCTTTCGACTGGATGACGATGGCCCCATTTCAGGACCATTCTGTGGCCGTGCCAGAGTGCATACGGATTT  
CACGCCAAGTCCCTATGACACTGACTCCCTCAAAATCAAGAAAGGAGACATCATAGACATTATTTGCAAAACACC  
AATGGGGATGTGGACAGGAATGTTGAACAATAAAGTGGGAACTTCAAATTCATTTATGTGGATGTCATCTCAGA  
AGAGGAAGCAGCCCCAAGAAAAATAAAGGCAAACCGAAGGAGTAACAGCAAAAAATCCAAGACTCTGCAGGAGTT  
CCTAGAGAGGATTCTCTGCAGGAATACACCTCAACACTTTTGCTCAATGGTTATGAGACTCTAGAAGATTTAAA  
AGATATAAAAGAGAGTCACCTCATTGAATTAAATATTGAAAACCCAGATGACAGAAGAAGGTTACTATCAGCTGC  
TGAAAACCTTCCTTGAAGAAGAAATTATTCAAGAGCAAGAAAATGAACCTGAGCCCCTATCCTTGAGCTCAGACAT  
CTCCTTAAATAAGTCACAGTTAGATGACTGCCCAAGGGACTCTGGTTGCTATATCTCATCAGGAAATTCAGATAA  
TGGCAAAGAGGATCTGGAGTCTGAAAATCTGTCTGACATGGTACATAAGATTATTATCACAGAGCCAAAGTGACTG  
AACACGCATTCCCAACTATATATCTACAGATGCATTCCATTTTAACTCTTCTTGAGCTAAAACGTCAAATAGGAG  
AGGAAGATAAGATAAATATTTGTAAATAAAACCTAAAGTTTAAATGTTTTAATCTGAATAATTGTACATAAAATT  
TTGTATCTCTAACATTCCAAATTACTGTCAATAAAATATATATTTATTATTTTAAATGCTATGTGTTAATATTTT  
ACTTGCTTGTATTAGAAAGGCAAAATGTAAGACTTTGGTATGTGTGACATATGCTTTATTTGGCTTTATTTTACA  
AGTACAGTATCTGCAAAAAACAAAGTAACCTTTTTTCATACCTGCCAGTTTTGAATTTATATATGTTATTGAACA  
AATAGTAATAGAGGATTCGCTGTTGAAACAAGTTGTCCAAGCAATGTTATATTCATTTTTTATACTTATTGGGAAA  
GTGTGAGTTAATATTGGACACATTTTATCCTGATCCACAGTGGAGTTTTAGTAATTATATTTTGTGATTTCTTC  
ATTTTGTTTTCTGGTATAAAAGTAGAGATAATGTGTAGTCACTTCTGATTTAGTGAAACCAATTGTAATAATTGT  
GGAAATGTTTTGTCTTTAAGTGTAATATTTTAAATTTGACATACCCTAATGTTAATAATAAAAAGAACTATTT  
GCATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 498**

MEIRLDTLSASLGRSSTLND CNLEDKLAWYEGEAYMWHHWKPF PENPLWTC LDFQIAQVGPWDYCSSCIRHTRLK  
SSCSDMDLLHSWRSSSF GNFDRFRNNSLSKPDDSTE AHEGDPTNGSGEQSKTSNNGGGLGKKMRAISWTMKKKVG  
KKYIKALSEEKDEEDGENAHPYRNSDPVIGTHTEKVSLKASDSMDSLYSGQSSSSGITSCSDGTSNRDSFRLDDD  
GPYSGPFCGRARVHTDFTSPYD TDSLKIKKGDIIIDI ICKTPMGMTGMLNNKVGNFKF IYVDVISEEEAAPKKI  
KANRRSNSKKS KTLQEFLE RHLQEY TSTLLNGYETLED LKDIKESH LIELNIENPDDRRRLLSAAENFLEEEI  
IQEQENEPEPLSLSSDISLNKSQLDDCPRDSGCYI SSGNSDNGKEDLESENLSDMVHKIIITEPSD

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**FIGURE 499**

GGGGCAGACGTGGGACGGGAAGGACGGCTGCCGGGACTGGCGCGCGGGGACACTGGGCCCACGCGTGGAGTAGCG  
GGGAGAGCGGGAAGCCTGAGGGGGCGGGGCCGGCGCGAGGCCGTGGGTGCGGCACGAGGATGCCGGCGGCGGGAC  
AGCGCCCGTAGGCAGCCCCACGGGCAGGGCGCGCGGGCGGGGCGGGGCGGGCCAGAGGAGCTCCCGGCAT  
GTCGCAAGGGCTCCCGGCCCGCGGCAGCGTCCTGCAGAGGAGCGTCGCGGCGCCCGGGAACCAGCCGCAGCCGCA  
GCCGCAGCAGCAGAGCCCTGAGGATGATGACAGGAAGGTCCGAAGGAGAGAAAAAACCAGTTGCTGCTCAGAG  
AAGTCGGAAGAAGCAGACCCAGAAGGCTGACAAGCTCCATGAGGAATATGAGAGCCTGGAGCAAGAAAACACCAT  
GCTGCGGAGAGAGATCGGGAAGCTGACAGAGGAGCTGAAGCACCTGACAGAGGCACTGAAGGAGCACGAGAAGAT  
GTGCCCCTGCTGCTCTGCCCTATGAACCTTGTGCCAGTGCTCCCGGCCGGACCCTGTGGCCGGCTGCTTGCC  
CCGATGAAGCCGGGGACACTCCTCTGCCCAGCAAGGAGCCTTGGTCATTTTCATACCTGGGAGGAAGGCTTTTCC  
TTCACAATTGTATACAGGGGGCACCTGTGGCCAGGCCTCCTCCTGGGAGCTCCAGGACCAGCCAGCTGTGTTCCC  
TGCAGACTGGGCTCAGCCCGA/CATCCAACAGGCGCCAAACTCACAGAGCCCTTGTGCAGATCCAGCATGGAGGCC  
ACCCTCAGGAGTGACTTCTCATCCACCCTGGCAGCTAGTAGGTTCTGCTGTTATGCAGAGCCATTTCTCTAGAA  
TTTGGATAATAAAGATGCTTATTGTCTCTCCCTTCTCCAGTTCTGGGAATTTACAGGCACAATACACTTCCTTTT  
CCTGG

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**FIGURE 500**

MSQGLPAAGSVLQRSVAAPGNQPQPQQQSPEDDDRKVRREKNRVAAQSRKKQTQKADKLHEEYESLEQENT  
MLRREIGKLTEELKHLTEALKEHEKMCPLLLCPMNFVPVPPRPDPVAGCLPR

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**FIGURE 501**

CTAAAGTGGAGCCCAGCGGCGGGTGTGAGAGTCCGTAAGGAGCAGCTTCCAGGATCCTGAGATCCGGAGCAGCCG  
GGGTCCGAGCGGCTCCTCAAGAGTTACTGATCTATGAAATGGCAGAGAATGGAAAAAATTGTGACCAGAGACGTG  
TAGCAATGAACAAGGAACATCATAATGGAAATTTACAGACCCCTCTTCAGTGAATGAAAAGAAGAGGAGGGAGC  
GGGAAGAAAGGCAGAATATTGTCTGTGGAGACAGCCGCTCATTACCTTGCAATTTTTCTCTGGAAATCCTTG  
TAATCTTGAAGGAATGGACCTCAAAATTATGGCATCGTCAAAGCATTGTGGTGTCTTTTTTACTGCTGCTTGCTG  
TGCTTATAGCTACGTATTATGTTGAAGGAGTGCATCAACAGTATGTGCAACGTATAGAGAAACAGTTTCTTTTGT  
ATGCCTACTGGATAGGCTTAGGAATTTTGTCTTCTGTTGGGCTTGGAACAGGGCTGCACACCTTTCTGCTTTATC  
TGGGTCCACATATAGCCTCAGTTACATTAGCTGCTTATGAATGCAATTCAGTTAATTTTCCCGAACCACCCTATC  
CTGATCAGATTATTTGTCCAGATGAAGAGGGCACTGAAGGAACCATTTCTTTGTGGAGTATCATCTCAAAAGTTA  
GGATTGAAGCCTGCATGTGGGGTATCGGTACAGCAATCGGAGAGCTGCCTCCATATTTTCATGGCCAGAGCAGCTC  
GCCTCTCAGGTGCTGAACCAGATGATGAAGAGTATCAGGAATTTGAAGAGATGCTGGAACATGCAGAGTCTGCAC  
AAGACTTTGCCTCCCGGGCCAACTGGCAGTTCAAAAAGTAGTACAGAAAGTTGGATTTTTTGAATTTTGGCCT  
GTGCTTCAATTCCAAATCCTTTATTTGATCTGGCTGGAATAACGTGTGGACACTTTCTGGTACCTTTTTTGGACCT  
TCTTTGGTGAACCTTAATTGGAAAAGCAATAATAAAAATGCATATCCAGAAAATTTTTGTTATAATAACATTCA  
GCAAGCACATAGTGGAGCAAAATGGTGGCTTTTATTGGTGTGTCCCCGGCATAGGTCCATCTCTGCAGAAAGCCAT  
TTCAGGAGTACCTGGAGGCTCAACGGCAGAAAGCTTCACCACAAAAGCGAAATGGGCACACCACAGGGAGAAAAGT  
GGTTGTCTGGATGTTTGAAGTTGGTTCGTTGTCATGGTGTGTTACTTCATCCTATCTATCATTAACTCCATGG  
CACAAAGTTATGCCAAACGAATCCAGCAGCGGTTGAACTCAGAGGAGAAAAGTAAATAGTAAAGTAAAGTTTAA  
ACTGCAGAAATTGGAGTGGATGGGTTCTGCCTTAAATTGGGAGGACTCCAAGCCGGGAAGGAAAATTCCCTTTTC  
CAACCTGTATCAATTTTTTACAACTTTTTCTGAAAGCAGTTTAGTCCATACTTTGCACTGACATACTTTTCCT  
TCTGTGCTAAGGTAAGGTATCCACCCTCGATGCAA TCCACCTTGTGTTTTCTTAGGGTGAATGTGATGTTTCAGC  
AGCAAACCTTGCAACAGACTGGCCTTCTGTTTGTTACTTTCAAAAGGCCACATGATACAATTAGAGAATTCCCAC  
CGCACAAAAAAGTTCTAAGTATGTTAAATATGTCAAGCTTTTTTAGGCTTGTACAAATGATTGCTTTGTTTTC  
CTAAGTCATCAAAATGTATATAAATTATCTAGATTGGATAACAGTCTTGCAATGTTTATCATGTTACAATTTAATA  
TTCCATCCTGCCCCAACCTTCTCTCCCATCCTCAAAAAAGGGCCATTTTATGATGCATTGCACACCCTCTGGGG  
AAATTGATCTTTAAATTTTGAAGCAGTATAAGGAAAATCTGGTTGGTGTCTTACAAGTGAGCTGACACCATTTT  
TATTCTGTGTTATTTAGAATGAAGTCTTGAAAAAACTTTATAAAGACATCTTTAATCATTCCAAAATTGTGTCCG  
TTTTCTTGAGCGTTTTTGATTTTTTACTTTTAGCTTATACCAGCTGAATGGCAGCCTTGCTAATCCACCTACAAC  
AAGAATTTCTTAAGCTTTCTTTTATTTGCATGAGAGAGCCACTACCAAGGCATGTTTTGTTATGCTGAAACTGGG  
CTGCTGCATACTGCTAAATGGCACCTCTGGGATTGGCCTACCTGGGGATTTCTTGGTTTGTGAAAACAGGAGAGG  
AGAAATATCTCATAAAGTGAAGGATACTGGAGAGAGAAATTACCCATTTCTAAAAAAAACCACACTCTGTGC  
TATCTGTGTTAATGTTTTCTAGCATGTACTCTGGTTTCAACAGACACAAATTTATATGTTAACCCAGTTTTCTTG  
CCGTTCTGTAAGTGTTTTATTCTTAGTGTGATTTTTTCCATTGGGATGTTTTTGATTGAACCTGTTTCAATTTTGT  
TTTGCTTGGGAGGAAAATAACAATTTTACTTTTTTCCTTAAAAA



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**FIGURE 502**

MAENGKNCQRRVAMNKEHHNGNFTDPSSVNEKKRREREERQNIWLWRQPLITLQYFSLEILVILKEWTSKLWHR  
QSIVVSFLLLLAVLIATYYVEGVHQQYVQRIEKQFLLYAYWIGLGILSSVGLGTGLHTFLLYLGPHIASVTLAAY  
ECNSVNFPEPPYPDQIICPDEEGTEGTISLWSIISKVRIEACMWGIGTAIGELPPYFMARAARLSGAEPDDEEYQ  
EFEEMLEHAESAQDFASRAKLAVQKLVQKVGGFGLACASIPNPLFDLAGITCGHFLVPPFWTFFGATLIGKAIK  
MHIQKIFVIITFSKHIVEQMVAFIGAVPGIGPSLQKPFQEYLEAQRQKLHHKSEMGTPOGENWLSWMFEKLVVVM  
VCYFILSIINSMAQSYAKRIQQRLNSEEKTK

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**FIGURE 503**

TCCCTGTCTGCGCCCGCGCGCCCCGGGAGCCTACCCAGCACGCGCTCCGCGCCCACTGGTTCCCTCCAGCCGCC  
GCCGTCCAGCCGAGTCCCCACTCCGGAGTCGCCGCTGCCGCGGGGACATGGTCTCTGCGTTACAGGGGTGAGCAC  
CCCCTTGTAAGCTCAGGGCTACTGTTGGGTGTGAGGGAACAAAGTTTTAGACTGCTGCGCTCCAAAGCGGGCACA  
CACATGTACCTAGAACACACCAGCCACTGTCCCCACCATGATGATGACACAGCCATGGACACACCCCTGCCCAGA  
CCTCGTCCTTTGCTGGCTGTGGAGCGGACTGGGCAGCGGCCCTGTGGGCCCCGTCCCTGGAAC TGCCCAAGCCA  
GTCATGCAGCCCTTGCTGCTGGGGCCTTCCTCGAGGAGGTGGCAGAGGGTACCCCAGCCCAGACAGAGAGTGAG  
CCAAAGGTGCTGGACCCAGAGGAGGATCTGCTGTGTCATAGCCAAGACCTTCTCCTACCTTCGGGAATCTGGCTGG  
TATTGGGGTTCCATTACGGCCAGCGAGGCCCGACAACACCTGCAGAAGATGCCAGAAGGCACGTTCTTAGTACGT  
GACAGCACGCACCCCAGCTACCTGTTACGCTGTGAGTAAAACCACTCGTGGCCCCACCAATGTACGCATTGAG  
TATGCCGACTCCAGCTTCCGTCTGGACTCCAAC TGCTTGCCAGGCCACGCATCCTGGCCTTTCGGGATGTGGTC  
AGCCTTGTGCAGCACTATGTGGCCTCCTGCACTGCTGATACCCGAAGCGACAGCCCCGATCCTGCTCCCACCCCG  
GCCCTGCCTATGCCTAAGGAGGATGCGCCTAGTGACCCAGCACTGCCTGCTCCTCCACCAGCCACTGCTGTACAC  
CTAAAAGTGGTGCAGCCCTTGTACGCAGAAGCAGTGCCCGCAGCCTGCAACACCTGTGCCGCTTGTTCATCAAC  
CGTCTGGTGGCCGACGTGGACTGCCTGCCACTGCCCGCGCATGGCCGACTACCTCCGACAGTACCCCTTCCAG  
CTCTGACTGTACGGGGCAATCTGCCACCCCTCACCCAGTCGCACCCTGGAGGGGACATCAGCCCCAGCTGGACTT  
GGGCCCCCACTGTCCCTCCTCCAGGCATCCTGGTGCCTGCATACCTCTGGCAGCTGGCCCAGGAAGAGCCAGCAA  
GAGCAAGGCATGGGAGAGGGGAGGTGTCACACAAC TTGGAGGTAAATGCCCCAGGCCGCATGTGGCTTCATTAT  
ACTGAGCCATGTGTCAGAGGATGGGGAGACAGGCAGGACCTTGTCTCACCTGTGGGCTGGGCCCAGACCTCCACT  
CGCTTGCTGCCCCTGGCCACCTGAACTGTATGGGCACCTCTCAGCCCTGGTTTTTCAATCCCCAGGGTCGGGTAGG  
ACCCCTACTGGCAGCCAGCCTCTGTTTCTGGGAGGATGACATGCAGAGGAACTGAGATCGACAGTGACTAGTGAC  
CCCTTGTTGAGGGGTAAGCCAGGCTAGGGGACTGCACAATTATACACTATTTATTTATTTATTTCTCCTTGGGGTT  
GGTGTGAGGGGCGAGCCAACCCACCTCTATGCCC TGAGCCCTGGTAGTCCAGAGACCCCCAACTCTGCCCTGGCT  
TCTCTGGTTCTTCCCTGTGGAAAGCCCATCCTGAGACATCTTGCTGGAACCAAGGCAATCCTGGATGTCTGGTA  
CTGACCCACCCGTCTGTGAATGTGTCCACTCTCTTCTGCCCCAGCCATATTTGGGGAGGATGGACAAC TACAAT  
AGGTAAGAAAATGCAGCCGGAGCCTCAGTCCCCAGCAGAGCCTGTGTCTCACCCCCCTCACAGGACAGAGCTGTAT  
CTGCATAGAGCTGGTCTCACTGTGGCGCAGGCCCGGGGGAGTGCCTGTGCTGTCAGGAAGAGGGGGTGTGGT  
TTGAGGGCCACCACTGCAGTTCTGCTAGGTCTGCTTCCTGCCCAGGAAGGTGCCTGCACATGAGAGGAGAGAAAT  
ACACGTCTGATAAGACTTCATGAAATAATAATTATAGCAAAGAACAGTTTGGTGGTCTTTTCTCTTCCACTGATT  
TTTCTGTAATGACATTATACCTTTATTACCTCTTTATTTTATTACCTCTATAATAAAATGATACCTTTTTCATGT  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 504**

MVLCVQGPRPLLAVERTGQRPLWAPSLELPKPVMQPLPAGAFLEEV AEGTPAQTESEPKVLDPEEDLLCIAKTF S  
YLRESGWYWGSITASEARQHLQKMPEGTF LVRDSTHPSYLF T LSVKTTTRGPTNVRIEYADSSFR LDSNCLSRPRI  
LAFPDVVSLVQHYVASCTADTRSDSPDPAPT PALMPKEDAPSDPALPAPPPATAVHLKLVQPFVRRSSARSLQH  
LCRLVINRLVADVDCLEPLPRRMADYLRQYPFQL

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**FIGURE 505**

CTGGAGACATTTTTGATTGTCACAAATGATGGGTGTTGTGTTTCTGGCATGGGTAGAGGGATGCTACTAAACATC  
CTACCGTGCACAGGATGGCCCTCCACAATGGATTCTGTGGCCCCAAATGTTAATAGTGCCAAAGTTGAGAGACCC  
TGGGGTAGAGACGTGTGATGGGAAGGAAAGAAAATTACCTTTAGAGCTGCGCGCCGCGGCGGCGGAAGATGGCTG  
CGGCCGAGTTGGCGGACACTCAGCTGATGCTTGGAGTCGGGCTGATCGAAAAGGACACAAATGGAGAAGTTCTGT  
GGGTGTGGTGTTATCCTTCCACGACAGCCACATTAAGGAACCTGCTGCTGAGAAAATGCTGCCTTACAGATGAAA  
ACAAACTTCTCCATCCCTTTGTCTTTGGTCAGTACAGAAGAACATGGTTTTATATCACAATAATTGAAGTTCCAG  
ATTCTTCCATTTTGAAAAAGGTGACTCATTTTTCTATTGTCTGACCGCCAAAGATTTTAACCCAGAGAAGTATG  
CTGCCTTCACTAGGATATTGTGTAGAATGTACCTGAAACATGGGAGCCAGTTAAAATGATGGAGAGTTATATTG  
CAGTTCTCAAAAGGGGATATGCCAGAGTGAAGAAAACGGCTCTTTCCCTTAGTAAGGATTTTGATGCCCGAAAGG  
CCTACCCGGCTGGCTCCATCAAAGACATTGTATCTCAGTTTGGAAATGGAAACTGTTATCTTACACACAGCACTGA  
TGCTAAAGAAAAGAATTGTGGTGTATCACCCCAAGATAGAAGCGGTCCAGGAGTTCACCAGGACTCTGCCTGCC  
TGGTGTGGCACCACAGGACTGGACCATCCTTCACTCTTACGTGCACCTCAACGCCGATGAGCTGGAAGCCCTGC  
AGATGTGCACAGGTTACGTCGCTGGATTTGTAGACTTGGAGGTGAGCAACAGACCAGACCTCTATGATGTGTTTG  
TGAATCTGGCAGAGAGTGAGATTACCATTGCTCCCTTGCAAAAGAGGCCATGGCAATGGGCAAACTGCACAAAG  
AAATGGGTCAGCTAATTGTTTCAGTCTGCAGAAGATCCAGAGAAATCAGAGAGCCACGTTATACAGGATATTGCTC  
TAAAAACAAGAGAAATCTTTACCAACCTAGCACCATTTTCAGAAGTTTCGGCTGATGGAGAAAAGAGAGTCCTTA  
ATTTGGAGGCGCTAAAGCAAAAACGATTTCCACCAGCAACAGAAAACCTTCTTTATCATCTAGCAGCAGCCGAAC  
AAAATGCTGAAAATCTGACTGTGTGACAGAAACCGTATCACTGATGACTGATAGAAAGCCCTCTTTACTCTGATTA  
CCCCTCACTACATGAAGTCCTGAAAATAACAGAGAACTGTTATATCTTTTTAATGATTATTGCAAGTATTG  
AGATTTGACCTGAAAAACAATGAAACACATGAACACACTTCCGATTTTCTCCTCGCTGATTAGCTTCTGCTGC  
TGTCAGTGCTGGACGAAGTGCTATAACTACTTTATGTAACATTACAGAACAGCTAGAGGTCTGGGGTAAGAGAA  
AAAAAGCACATCACAAACAATGTGAAAGCCTTCATTATTACACGTTCCAGTTTGTCTCGCTGTGTAGGCATAAGC  
TAATGGTTTTATTTTCAGAAAGCTGCCTGAAACGTTGCTTTGTATTCTTCTAGGAAGAAGCTTTAATTCCTCCTGAG  
GAACTCTACTTTCTGAGCCAAACTGCTAATTTTCTGCGGAAGTGTCTAGAAGATCATTCAAGAGACCTGCAAGT  
GCACCTTCTCGTAAAAGTT

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**FIGURE 506**

MAAAELADTQLMLGVGLIEKDTNGEVLWVWCYPSTTATLRNLLLRKCCLTDENKLLHPFVFGQYRRTWIFYITIE  
VPDSSILKKVTHFSIVLTAKDFNPEKYAAFTRILCRMYLKHGSPVKMMESYIAVLTKGICQSEENGSLSKDFDA  
RKAYPAGSIKDIVSQFGMETVILHTALMLKKRIVVYHPKIEAVQEFTRTLPALVWHRQDWTILHSYVHLNADELE  
ALQMCTGYVAGFVDLEVSNRPDLYDVFNLAESEITIAPLAKEAMAMGKLHKEMGQLIVQSAEDPEKSESHVIQD  
IALKTREIFTNLAPFSEVSADGEKRVLNLEALKQKRFPPTENFLYHLAAAEQNAENLTV